Nokia 2280 User Guide

What information is needed?	Numbers	Where is the number?
My number		Wireless service provider
Voice mail number		Wireless service provider
Wireless provider's number		Wireless service provider
Provider's customer care		Wireless service provider
Model number	Nokia 2280	See "About your phone" on page 12.
Phone type	RH-17	Back of title page
Electronic serial number (ESN)		See "Have the right information available" on page 10.

The wireless phone described in this guide is approved for use in CDMA networks.

LEGAL INFORMATION

Part No.9355906, Issue No. 1

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Printed in Canada 1/2003.

US Patent No 5818437 and other pending patents.

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1 For your safety

Read these simple guidelines. Breaking the rules may be dangerous or illegal. Further detailed information is given in this manual.



SWITCH OFF WHERE PROHIBITED

Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.



ROAD SAFETY COMES FIRST

Don't use a hand-held phone while driving.



INTERFERENCE

All wireless phones may get interference, which could affect performance.



SWITCH OFF IN HOSPITALS

Follow any regulations or rules. Switch the phone off near medical equipment.



SWITCH OFF IN AIRCRAFT

Wireless devices can cause interference in aircraft.



SWITCH OFF WHEN REFUELING

Don't use the phone at a refueling point. Don't use near fuel or chemicals.



SWITCH OFF NEAR BLASTING

Don't use the phone where blasting is in progress. Observe restrictions, and follow any regulations or rules.



USE SENSIBLY

Use only in the normal position. Don't touch the antenna unnecessarily.



QUALIFIED SERVICE

Only qualified personnel may install or repair phone equipment.



ENHANCEMENTS AND BATTERIES

Use only approved enhancements and batteries. Do not connect incompatible products.



WATER-RESISTANCE

Your wireless phone is not water-resistant. Keep it dry.



BACKUP COPIES

Remember to make backup copies of all important data.



CONNECTING TO OTHER DEVICES

When connecting to any other device, read its user guide for detailed safety instructions. Do not connect incompatible products.



CALLING

Ensure the phone is switched on and in service. Enter the phone number, including the area code, then press the **Send** key. To end a call, press the **End** key. To answer a call, press the **Send** key.



EMERGENCY CALLS

Ensure the phone is switched on and in service. Press the End key as many times as needed (for example, to exit a call, to exit a menu) to clear the display. Enter the emergency number, then press the Send key. Give your location. Do not end the call until told to do so.

QUICK GUIDE

Enter phone number, press the **Send** key Make a call

Answer a call Press the **Send** key or Answer Press the **Send** key or Answer Answer a call with call waiting

End a call Press the **End** key

Ignore a call Press Silence when your phone rings

Redial Press the **Send** key twice

Adjust call volume Press the up scroll key or the down scroll key Use the in-call menu While in a call, press the left selection key to select

Options

Use 1-touch dialing Press and hold any key 2 through 9

Save a name and number Enter a number, press the left selection key to select

Options, select Save. Enter a name and press OK Press Contacts, select Search. Enter first character of Recall a name/number

name and press Search

Press Options, scroll New call, press Select, press Search, Recall a name/number enter the first letter of the name to find during a call

Check voice mail Press and hold 1 OR dial your voice mailbox number Send a text message

Press Menu 01-1-1. Add recipient's phone number, then press Options. Scroll to Enter text, then press Select. Enter the message text, then press Options and select Send.

Send an e-mail message Press Menu 01-1-1. Add recipient's e-mail address, then press Options. Scroll to Enter text, then press Select. Enter

the message text, then press Options and select Send.

Read new message Press Show.

Press Options, select Reply, then select a reply option. Reply to a message

Write the reply, press **Options** and select **Send**.

Reply to an e-mail message Press Options, select Reply, then select a reply option.

Write the reply, press Options and select Send.

Send a business card (SMS) Recall a name from the phone book. Press Details, then press Options, select Send bus. card, select Via text msq.

Enter the recipient's number or press Search to retrieve a

number from the phone book. Press OK.

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2 Welcome

Congratulations on the purchase of your Nokia mobile phone-a new tool for the mobile information society.

Nokia recommends that you read this chapter before you use your new phone. You will find useful information about:



- How to use this guide
- How to understand network services
- How to contact Nokia

GET THE MOST OUT OF THIS GUIDE

The tips that follow can help you use this guide efficiently as you learn to use your phone.

Understand the terms

This guide uses certain terms for certain actions.

- Press means to briefly press then release a key. For example,
 Press 0 means to press the zero key.
- Press Menu means to press the selection key that is below the word Menu on the phone screen.
- Press and hold means to press and hold a key for two to three seconds (depending on the feature you are using), then release the key.
- Use the selection keys to choose an option on a menu.
- Highlighted means that an option displayed on the screen is enclosed in a dark bar. Choices you make with the two selection keys act on the highlighted option.

Observe text conventions

This user guide provides text clues to make instructions easy to follow.

Convention	What it means	
bold	Indicates one of the following items:	
	The word or phrase appears on the phone's screen.	
	Special text such as Notes and Warnings.	
bold and blue	Indicates the text is an address on the World Wide Web.	
blue and italic	A definition for the word or phrase appears in the terms list (glossary) near the end of the user guide.	
italic	Italics indicate emphasis. Pay close attention to any information in italics.	

Follow graphic clues

This user guide provides graphic clues (icons) to alert you to important information.



Tip: Information about a shortcut or another way to do something.



Note: Explanations about a feature or an important concept.



Important: Critical information about a feature.



Caution! Help to avoid information loss.



Warning! Helps to avoid personal injury, damage to the phone, or property damage.

Look for updates

From time to time, Nokia updates this user guide to reflect changes or corrections. The latest version can be found in the US market section of the Nokia Web site:

http://www.nokia.com

UNDERSTAND WIRELESS NETWORK SERVICES

Your service provider's wireless network may be equipped to provide special features or functions for use with your Nokia phone. These features are called *network services*, and may include some of the following:



- Voice mail and voice privacy
- Call waiting, call forwarding, and caller ID
- Text messages
- Ability to block or send your own caller ID
- News and information services
- Selected Internet access services

Sign up with a service provider

Before you can take advantage of your service provider's network services, you must sign up with a wireless service provider and subscribe to these services. Your service provider will make available descriptions of its services and instructions for using them.

Note differences among service providers

Wireless service providers may differ from each other in certain ways. For example, some networks may not support special language-dependent characters. Contact your service provider regarding your service needs.

LEARN ABOUT ACCESSIBILITY SOLUTIONS

Nokia is committed to making mobile phones easy to use for all individuals, including those with disabilities. Nokia maintains a Web site that is dedicated to accessibility solutions. For more information about phone features, enhancements, and other Nokia products designed with your needs in mind, please visit the following Web site:

www.nokiaaccessibility.com

Access alternate formats

This user guide is available in alternate formats. Contact Nokia at www.nokiaaccessibility.com or call 1-888-665-4228 for more information.

Accessible features

Your phone has many accessible features, including the following:

- Tactile feedback when a you press a key
- Ability to send and receive short text messages
- Convenience of 1-touch dialing
- Vibrating alert for incoming calls and messages
- Flashing lights alert for incoming calls and messages

LPS-4 mobile inductive loopset

The LPS-4 loopset is a Nokia enhancement designed to make the 2200 series phone more accessible to hearing-aid users.

The Nokia loopset gives hearing-impaired wireless customers clear access to digital telephony. With the loopset, people who use a T-coil equipped hearing aid can make and receive calls without noise interference.



Note: The LPS-4 is sold separately as an enhancement. Once you connect the LPS-4 to your phone, use the phone menu (Menu > Settings > Enhancement settings > Loopset) to enable loopset mode. For more information, see "Learn about the HDB-4 headset" on page 35.

CONTACT NOKIA

When you need help, the Nokia Care Center can provide information about Nokia products. Please refer to the table on the following page for more information on how to contact Nokia.

Customer Care Center, USA	Customer Interaction Centre, Canada
Nokia Mobile Phones 7725 Woodland Center Blvd., Suite #150 Tampa, Florida 33614 Tel: 1-888-NOKIA-2U (1-888-665-4228) Fax: 1-813-249-9619 TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)	Nokia Products Ltd. 601 Westney Road South Ajax, Ontario L1S 4N7 Tel: 1-888-22-NOKIA (1-888-226-6542) Fax: 1-905-427-1070

If you ever need to call Nokia Customer Care, Nokia Customer Interaction Center, or your wireless service provider, you will need to provide specific information about your phone. This information is provided on the phone's label.

Phone label

The phone label is inside the back cover of your phone, located under the battery. It contains important information about your phone, including the model and electronic serial numbers (ESN). Nokia recommends that you note this information on the title page of this guide. Please do not remove or deface the label.

Have the right information available

We recommend that you have the following information available before you contact the Nokia Customer Service department:

- The phone model number
- Electronic serial number (ESN)
- Your 7IP code

Have the phone or enhancement available

Whether calling about your phone or an enhancement, have the equipment available when you call. A Nokia representative may ask a specific question about your phone or enhancement, so please have the device available for quick reference.

REGISTER YOUR PHONE

Make sure to register your phone at www.warranty.nokiausa.com or 1-888-NOKIA-2U (1-888-665-4228) so that we can serve your needs better if you should call the Nokia Customer Care Center or have your phone repaired.

E-NEWSLETTERS

When you register your phone, you can sign up for Nokia's e-newsletter *Nokia Connections* if you would like. You will receive tips and tricks on using your phone, enhancement information, and special offers.

CONTACT YOUR SERVICE PROVIDER

Some service providers have preprogrammed their customer support number into the phone. Pressing and holding the 2 key (or the key that your service provider instructs you to use) for two seconds will automatically dial their customer support number.

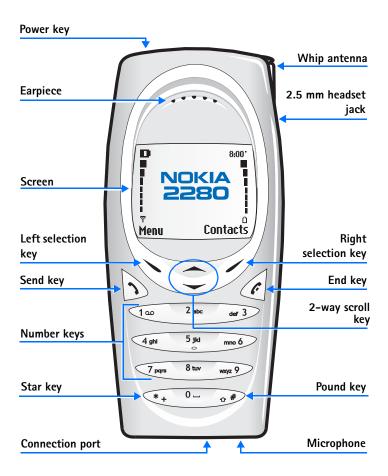
This feature can be helpful if you are having difficulties dialing a number, especially when traveling outside your home area.

If your service provider determines that the problem is Nokia-related, the provider's representative will direct you to the Nokia Customer Care Center (USA) or Nokia Customer Interaction Centre (Canada).



Note: This one-key feature may not be available on all systems. Contact your service provider for availability.

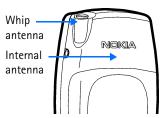
3 About your phone



ABOUT THE ANTENNAS

Your phone is equipped with two antennas. The internal antenna is always active. The whip antenna is activated when the whip antenna is fully extended.

As with any other radio transmitting device, do not touch either of the two antennas unnecessarily when the phone is switched on. Contact with the antenna affects call quality and may cause the phone to operate at a higher power level than otherwise needed. Not touching the antenna area during a phone call optimizes the antenna performance and the talk time of your phone.





While in a call, hold the phone to your ear, placing your finger tips on the Nokia badge at the mid-center of the back cover (located below the antenna area on the back of your phone).

ABOUT THE BATTERY

Install the battery



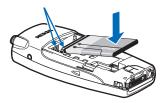
Warning! Use only the BL-5C battery in this Nokia phone.

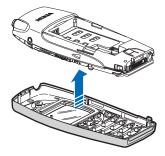
If your dealer has already installed the battery, please see "Charge the battery" on page 15.

- Remove the back cover of the phone by pressing and holding the release button while sliding the cover downward toward the bottom of the phone. Set the back cover aside.
- Place the battery in the compartment with the label side facing down and the metal contacts aligned with the contact prongs.
- 3 Snap the battery into place.
- 4 Replace the cover by placing it into the slots on the back of the phone, and sliding the cover upward until it is in place.









ů

Charge the battery

Follow these guidelines to charge the battery.

1 Connect the charger to an ac wall outlet.



- With your phone on or off, connect the lead from the charger to the charging port located on the bottom of the phone. The battery indicator bar appears on the screen and starts to scroll up after a few seconds. With the phone off, only the
 - scroll up after a few seconds. With the phone off, only the battery indicator bar will appear.
- 3 Disconnect the charger from the phone and ac outlet when the battery is fully charged.

After the indicator bar stops scrolling, the battery is almost fully charged, and is fully charged after an additional hour (approximately). The message Battery Full is displayed.



Note: For best performance, charge the battery for 24 hours before you use the phone. The charging time depends on the charger and battery you use. For example, the charging time for the BL-5C battery with the ACP-7U charger is approximately 4 hours.



Important: Do not leave the battery connected to a charger for more than 72 hours, since prolonged maintenance charging could shorten its lifetime.

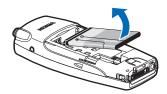
Remove the battery



Warning! Use only your hands to remove the battery. Do not puncture, burn or use any objects that may damage the phone or the battery. Please recycle the battery, or dispose of properly.

You will need to remove the existing battery if you want to install a new battery. Make sure the phone has been turned off for 10 seconds.

- 1 Remove the back cover of the phone as shown in step 1 on page 14.
- Place your index finger in the space at the bottom of the battery, and press toward the top of the phone.
- 3 Take out the battery.



RUIM card slot

There is an open slot under the battery. Do not place any objects in this slot. This product does not support RUIM cards.



Important battery information

- Recharge your battery only with a charger approved by Nokia.
- You can switch the phone on and use it for calls while the battery is charging.
- If the battery is totally empty, it may take a few minutes for the battery indicator to appear on the screen.
- If you switch the phone on when charging is complete, the message Battery full is displayed momentarily.

- Charging time depends on the charger and battery used. Please see "Battery information" on page 145, for more information.
- If the battery has become completely empty, you may need to recharge it for a few minutes before you can make or receive calls.

SWITCH YOUR PHONE ON OR OFF

To switch your phone on or off, press and hold the power key (located on the top of the phone) for two seconds.

Power key





Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

CHECK THE START SCREEN

The Start screen refers to the phone display when no calls are in progress, and there are currently no menu or phone book entries displayed.



You can easily return to the Start screen from any location (other than an active call) simply by pressing the End key. Keep in mind that any numbers that you were entering at the time will be lost. However, text messages will be saved.

The following table describes the status indicators and icons found on the Start screen:

Element	Description
Home	Your service provider's name may appear here.

Element	Description
■ ■ - - -	Shows the signal strength of the wireless network where you are. The higher the bar, the stronger the signal.
	Shows the battery charge level.
	The higher the bar, the higher the power level in the battery.
Menu	The entry point for your phone menu. Press the left selection key to view the menu options.
Contacts	The entry point for the phone book menu. Press right selection key to view the phone book menu options.
D	Icon appears in upper left corner of screen, indicating that you are in a digital network.

USE THE SELECTION KEYS

Note the two selection keys beneath the screen. The function of these keys is determined by the word shown above them on the screen.



For example, pressing the left selection key when the word Menu appears above it shows the first of many menus. Scroll through the menus using the scroll keys.

Likewise, pressing the right selection key when **Contacts** appears above it displays the phone book menu.

USE THE SCROLL KEYS

Note the two scroll keys in the center of the phone, beneath the screen. The function of these keys is to scroll through the different menus and lists within the phone.



LEARN ABOUT THE KEYS

The following table contains a summary of how the various keys on your phone work.

Key	Description
`	Send: Press the Send key to make a call to the name or number shown on the screen or to answer a call. Pressing this key when not in a call (or when not in the menu or phone book) displays a list of recently dialed numbers.
c	End: Press the End key to end a call, to silence the ring from an incoming call, or to exit the phone book or menus completely. Used as Back key in Minibrowser.
1 through 0	Number: Use keys 1 through 0 to enter numbers and letters. Press and hold 1 to dial your voice mailbox. Press and hold 0 to launch the minibrowser.
#	# key: Press the # key to change case of text, or to enable or disable predictive text input.
*/+	* key: Press the * key to enter special characters (for example: punctuation) or access special characters menu.

MAKE AND ANSWER CALLS

Use the following table as a quick reference for making and answering calls:

Task	Instructions
Make a call	1 Enter the number using the keypad (include area code as needed).
	2 Press the Send key.
	3 Hold the phone as you would any other telephone, with the ear piece over your ear and the microphone near your mouth.
Answer a call	When your phone rings, press the Send key.
End a call	Press the End key to terminate the active call.
Silence a call	Press the End key or press the right selection key to select Silence , when you do not want to answer a call, but still want to silence the ringer.
Keyguard	To avoid accidental calls, select Menu, then scroll up once, and press Select. You could also press Menu, then press the */+ key (within three seconds) to lock your keypad. This activates the Keyguard feature.
Unlock keypad	When the keypad is locked, select Unlock , then press the */+ key (within three seconds). This deactivates the Keyguard feature.

REVIEW PHONE SYMBOLS

The following is a collection of the various indicators and icons you may see on your phone.

Symbol	Description
•	A call is in progress.
ab.	You have selected the Silent profile (silencing your phone ringer, keypad tones, warning tones, etc.)
-0	Keyguard is active
00	You have one or more voice messages waiting.
	You have one or more unread text messages waiting.
D	Digital service is available.
™ABC	Letters you enter appear as uppercase (ALL CAPS).
"@abc	Letters you enter appear in lowercase.
™Abc	Letters you enter appear in sentence case (first word in sentence capitalized) or title case (in phone book).
യ123	Characters you enter appear as numbers.
. <u>=</u> %	Predictive text mode is active. Predictive text feature available for Calendar and for text messages.
:=≫АЬс	Predictive text mode activated. Characters you enter appear in sentence case (only first word in sentence capitalized).
: <u>=</u> 30ABC	Predictive text mode activated. Characters you enter appear as uppercase letters.

Symbol	Description
:==20abc	Predictive text mode activated. Characters you enter appear as lowercase letters.
?!£	Insert symbol mode, used to enter special characters such as punctuation marks.
*	The alarm clock is set.
Ů	Indicates that a reminder has expired.
Δ	Indicates you are roaming. For more information on roaming, see "View Roaming options" on page 111.
â	Indicates call over a secure connection.
0	Indicates that a headset is connected (either through the 2.5 mm jack or to the enhancement connector located at the bottom of phone).
u ())	Indicates phone is in handsfree car kit.
:= 6"	Indicates a connection to high-speed data network.
⊡ \$	Indicates you have a minibrowser message.

MEMORY USE

In your phone, Calendar Notes and Java Applications share a common pool of memory (storage capacity). When either of these features are used, there is less available memory for the other feature which is also dependent on shared memory. This is especially true with the heavy use of some features. If your use of a feature takes all of the shared memory, your phone may display a message saying Memory full. To proceed, you must delete some of the information or entries from these features to make additional memory space available.

For example, entering 75 calendar notes may consume significant shared memory. Consequently, if you attempt to download a Java midlet into your phone, a message saying Memory Full may appear. To proceed, you must delete some of the items or information occupying the memory.

VIEW YOUR PHONE HELP SYSTEM

Your phone provides brief descriptions of all menu options. To view any of the help texts:

- 1 Scroll to a menu or submenu option.
- Wait about 15 seconds.
 A short message appears, describing the option and what it does.
- 3 Select More, by pressing the left select key to view more feature details.

ENABLE/DISABLE HELP SYSTEM

Press Menu 4-2-5 (Settings > Phone settings > Help text activation) to turn the phone's help system on or off.

BROWSE PHONE MENUS

Your phone's menu system displays choices you can make to change settings on your phone or gives you access to various phone features. Your phone has 10 menus, plus the phone book menu (Contacts). Each menu can contain several levels of submenus.

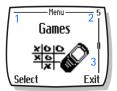


You can use menus and submenus two ways: by scrolling or by using a shortcut.

Check the menu number, header line, and scroll bar

A header line appears at the top of your screen when in the phone book or while navigating the menus. The header line provides you with a reminder of the phone book entry or the menu or submenu with which you are working.

- 1 Header line
- 2 Menu number
- 3 Scroll bar with tab



A scroll bar appears on the right side of the screen when you scroll through the main menu. A tab on the bar gives you a visual indication of your relative position in the menu structure.

The menu number is located at the top of the scroll bar.

Scroll through menus

- 1 At the Start screen, press Menu, then scroll through the menus using the up and down scroll key.
- 2 Press Options, Select, or OK, pressing the selection key for the option you want.
- 3 Use the scroll and selection keys to navigate the submenus. Press the End key to return to the Start screen.

SCROLLING TIPS

- You can scroll up and down to find some of the most frequently used submenu options.
- You can return to the previous menu level by pressing Back.
- To exit a menu and return to the Start screen, press the End key.
- Some menus may not appear. Ask your service provider for details.

Learn about menu shortcuts

Menus and options are numbered so that you can jump directly to the most frequently used option. The numbers appear in the top right corner of the screen and show your location in the menu.



USE A SHORTCUT

Example: To turn on Automatic redial:

- 1 Press Menu.
- Within three seconds, press 4-1-2-1 (Settings > Call settings > Automatic redial > On).

MENU AND MENU SHORTCUTS

MESSAGES
Text messages 01-1
Create message (Text/Numeric Page)
Text
Numeric page
Inbox01-1-2
Outbox
Archive
Templates
My folders
Delete messages
All read
Inbox
Outbox 01-1-7-3
Archive
Message settings01–1–8
Sending options
Other settings
Voice messages ¹ 01-2
Listen to voice messages

¹ Menu option may vary, based on your service provider's requirements.

About your phone

View details of last voice mail	01-2-2
Voice mailbox number	01-2-3
Clear voice mail icon	01-2-4
Minibrowser messages	. 01-3
CALL LOG	2
Missed calls	2-1
Received calls	2-2
Dialed numbers	
Delete recent call lists	
All	2-4-1
Missed	2-4-2
Received.	2-4-3
Dialed	2-4-4
Call Timers.	
Duration of last call	2-5-1
Show call time on display	
Duration of dialed calls	2-5-2
Duration of received calls	2-5-3
Duration of all calls	2-5-4
Life timer	2-5-5
Clear timers	2-5-6
Data/fax calls	2-6
Last sent data/fax	2-6-1
Last received data/fax	2-6-2
All sent data/fax	2-6-3
All received data/fax	2-6-4
Duration of last data/fax call	2-6-5
Duration of all data/fax calls	2-6-6
Clear all data/fax logs	2-6-7
Minibrowser	2-7
Last sent browser data	2-7-1
Last received browser data	2-7-2
All sent browser data	2-7-3
All received browser data	2-7-4
Last browser session	2-7-5
All browser sessions	2-7-6

Clear all browser logs	2-7-7
PROFILES	3
Normal	. 3-1
Select	3-1-1
Customize ¹	3-1-2
	3-1-2-1
	3-1-2-2
	3-1-2-3
Vibrating alert 3	3-1-2-4
Message alert tone 3	3-1-2-5
Keypad tones 3	3-1-2-6
Warning tones 3	3-1-2-7
	3-1-2-8
Profile name ²	3-1-2-9
Timed	3-1-3
Silent	. 3-2
Meeting	. 3-3
Outdoor	. 3-4
Pager	. 3-5
SETTINGS	4
Call settings	. 4-1
Anykey answer	4-1-1
Automatic redial	4-1-2
1-touch dialing	4-1-3
Auto-update of service ³	4-1-4
Minibrowser confirmation	4-1-5
None	1-1-5-1
On connection	1-1-5-2
	1-1-5-3
	1-1-5-4
Calling card	4-1-6

Customize options for Silent, Meeting, Outdoor, and Pager profiles are identical to those of the Normal profile

² Normal profile cannot be renamed.

³ Menu option may not be visible, based on your service provider's requirements.

None 4	-1-6-1
Card A 4	-1-6-2
Card B 4	-1-6-3
Card C 4	-1-6-4
Card D	-1-6-5
Data/fax calls	4-1-7
Phone settings	. 4-2
Language	4-2-1
Touch tones	4-2-2
Manual touch tones 4	-2-2-1
	-2-2-2
Welcome note	4-2-3
	4-2-4
Help text activation	4-2-5
Restore factory settings	4-2-6
Time settings	. 4-3
Clock	4-3-1
Show-Hide clock 4	-3-1-1
Set the time4	-3-1-2
Time format	-3-1-3
Date	4-3-2
Auto update of date & time	4-3-3
•	-3-3-1
	-3-3-2
	-3-3-3
Enhancement settings ¹	. 4-4
Handsfree	4-4-1
	-4-1-1
·	-4-1-2
	-4-1-3
Headset	4-4-2
	-4-2-1
-	-4-2-2
Loopset	4-4-3

¹ Enhancement settings does not appear in the menu until an enhancement has been connected to the phone.

Use loopset	4-4-3-1
Default profile	4-4-3-2
Automatic answer	4-4-3-3
Security settings	4-5
Call restrictions	. 4-5-1
Restrict outgoing calls	4-5-1-1
Restrict incoming calls	4-5-1-2
Access codes	. 4-5-2
Phone lock	4-5-2-1
Allowed number when phone locked	4-5-2-2
Change lock code	4-5-2-3
Change security code	4-5-2-4
Network services ¹	4-6
Voice privacy	. 4-6-1
Call forwarding	. 4-6-2
Forward all calls	4-6-2-1
Forward if busy	4-6-2-2
Forward if not answered	4-6-2-3
Forward all data/fax calls	4-6-2-4
Cancel all call forwarding	4-6-2-5
Call waiting	. 4-6-3
Send own caller ID when calling	. 4-6-4
Yes	4-6-4-1
No	4-6-4-2
Network feature setting	
Own number selection	
System ²	4-7
Roaming options	. 4-7-1
Mode	. 4-7-2
GAMES	5
Select game	
Snake II	
Space impact II	
Bumper	
<u>Dumper</u>	. 5-1-3

¹ Network services menu options are visible only after entering the correct services code.

² Menu options may vary, depending on your service provider's requirements.

About your phone

Settings
Game sounds 5-2-
Game lights
Shakes
VOICE
Voice tags 6-
Add voice tag ¹
Playback 6-1-1-
Change 6-1-1-
Delete 6-1-1-
Voice commands 6-
Profiles
Normal
Silent 6-2-1-
Meeting
Outdoor
Pager
Voice mailbox
Call voice mailbox
Recorder
Record 6-2-3-
Call log
Missed calls
Received calls
Voice recorder 6-
Record
Recordings list
Playback
Delete
Edit title
Alarm/Add alarm 6-3-2-
MINIBROWSER
ORGANIZER

¹ Voice command options for Profiles, Voice mailbox, and Call log are the same as Voice tag options.

Alarm clock
Calendar 8-2
View day 8-2-1
View 8-2-1-1
Make a note
Delete
Edit
Move
Repeat 8-2-1-6
Go to date
Send note
Copy
Settings 8-2-1-10
Make a note 8-2-2
Go to date
Settings
Set the date
Set the time
Date format
Date separator 8-2-4-4
Time format
Week starts 8-2-4-6
Auto delete 8-2-4-7
Calculator 8-3
Stopwatch
Continue 8-4-1
Show last time 8-4-2
Split timing
Lap timing
View times
Delete times
APPLICATIONS 9
KEYGUARD 10



Important: Some menu shortcuts may not be available. This list serves as a more detailed list of your phone menu structure, as well as a list of shortcuts.

PHONE BOOK MENU

From the Start screen, press **Contacts**. The following phone book options are available (see table on following page):

Menu	Menu (cont.)
Search Add new Edit name Delete One by one Delete all Add number Options Scrolling view Name list Name+number Memory status 1-touch dialing View number Change Delete Voice tags Playback Change Delete	Own number Caller groups Family ^a Group name Group ringing tone Group logo On Off View Group members Remove name Add name VIP Friends Business Other

a. Menu options for VIP, Friends, Business, and Other are identical to Family options.

4 Phone setup

Now that you've had a chance to learn about some of the basic functions and features of your phone, you may want to explore a few options to improve the way you use your phone.

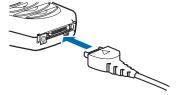
LEARN ABOUT THE HDB-4 HEADSET

Your sales package may include the HDB-4 headset. Using the headset offers you convenient handsfree communications with your phone.

Connect the headset

Before using the headset:

- 1 Plug the headset jack into the bottom of your phone.
- 2 Wrap the device around ear.



Use the headset

You can make, answer, and end calls as usual with the headset connected. The headset fits over your ear and the microphone hangs at the side of your head. When using this headset you can speak at a normal volume.

You can use the HDB-4's button to answer or end a call, as well as activate voice dialing or voice commands.

You can also use the **Send** key or the **End** key to answer and end calls.

Adjust the volume

Change the phone ear piece volume, to make the caller's voice louder or softer. Adjustments to the volume can only be made during a call by pressing the up or down scroll key.



5 Text entry



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can enter letters, numbers, and special characters using the phone keypad when working with the phone book, calendar, text messaging, or while browsing the Internet. This section provides detailed instructions for the two text entry methods, that is, traditional text entry and predictive text input.



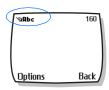
ENTER LETTERS AND NUMBERS

You have four modes available for entering information, based on the type of data you're entering (phone book, organizer notes or text messages):

Mode	The phone shows	Use for
ABC	****Abc - sentence case or title case (first letter capitalized)	Entering contacts, numbers or addresses in phone book
	™ABC - all uppercase letters ™abc - all lowercase letters	Entering notes in Calendar Writing a text message
123	123 - number entry.	Entering numbers
Special characters	?!£ - special characters list	Entering punctuation or special characters
Predictive text	with ABC mode indicators.	Writing SMS text messages or calendar notes

WRITE USING ABC AND 123 MODES

A status indicator in the upper left corner of your screen indicates the mode you are in whenever you are entering information into your phone book, calendar, or text messaging. Pressing # will change these modes.



Enter letters

The following table contains a list of the characters displayed when entering text and numbers from your keypad:

Key	Characters	Key	Characters
1	.,@?!-1	7	PQRS7
2	A B C 2	8	TUV8
3	DEF3	9	WXYZ9
4	GHI4	0	Space, 0, return
5	JKL5	*/+	Special characters menu
6	M N O 6	#	Changes letter case or mode.

Pressing a key repeatedly cycles you through all of that key's options. To enter a letter, press the appropriate key repeatedly until the desired letter appears. Continue this process until the word or name is completed.



Note: If the next letter in the word you are entering is on the same key, wait two to three seconds for the cursor to advance, then enter the new letter, or press **0** to advance the cursor.



Important: Phone language settings may affect the characters associated with the phone keypad.

For example: to enter the name "Albert":

Press 2	Α
Press 5-5-5	- 1
Press 2-2	b
Press 3-3	e
Press 7-7-7	r
Press 8	t



Note: Default mode is sentence case **Abc** where the first letter of a name or sentence is automatically capitalized. Phone book default mode is title case-each word is capitalized.

OTHER OPTIONS

- **Delete mistakes**-If you make a mistake, press **Clear** to delete one character to the left. Press and hold the **Clear** key to speed up the erasing process.
- Enter a space-When you have completed entering a word or name, press 0 to enter a space before the next word.
- Change letter case-Press # to switch between the various text entry modes or from uppercase and lowercase letters.
- To start a new line-Press 0 three times.

Enter numbers

Your phone automatically switches to 123 mode when entering a number into your phone book or entering a number in text messaging. When in ABC mode, you can insert numbers using any of the following methods:

- Press and hold the # key for two seconds to switch to 123 mode, then press the desired number keys.
- Press and hold # again to return to ABC mode.
- Press and hold the desired number key until the number appears on the display.
- Press the desired key repeatedly until the desired number appears.

Enter punctuation or other characters

You can enter punctuation, specials characters, and symbols while writing text messages, entering notes in the Organizer, creating phone book entries, or browsing the Internet. The illustration shows a sample of the available characters.



ENTER PUNCTUATION OR SPECIAL CHARACTERS

Depending on the type of text you are entering, you can add punctuation or special characters by doing any of the following:

- Press 1 repeatedly while in ABC mode to cycle through some of the most common punctuation marks and special characters.
- Press */+ to activate the special characters list. A screen appears displaying the available special characters.
- Use the scroll keys to highlight the desired character, then press Select.



Important: Some networks may not support all language-dependent characters.

Use special characters in phone numbers

You can enter certain special characters as a part of the phone numbers you save to the phone book. Pressing */+ repeatedly cycles through the four special characters available when saving a phone number.

- Sends command strings to the network. Contact your service provider for more information.
- Links a 1-touch dialing location to the number currently being entered.
- p Creates a pause that occurs when the phone dials a number. Numbers entered to the right of this special character are automatically sent as touch tones after a 2.5-second pause.
- w Causes the phone to wait for you to press Send.

WRITE WITH PREDICTIVE TEXT

A quick way to enter text is using a highly compressed database (or dictionary) of common words that tries to anticipate the word as you enter it.



You can use predictive text input when you:

- Write or reply to a text message
- Create a note in the calendar
- Enter text while using the minibrowser

Watching predictive text guess a word can be confusing, so you should disregard the screen until all characters have been entered.

Example: To write "Nokia":

What you press	What you see
Press 6 - N	0
Press 6 - o	On
Press 5 - k	Onl
Press 4 - i	Onli
Press 2 - a	Nokia

KEYS AND TOOLS FOR PREDICTIVE TEXT

Key	Description
2 - 9	Text entry. Press each key only once per letter.
	Press and hold the key to enter the number.
*/+	If the underlined word is not the word you intended, press this key repeatedly until the word you want appears.
	Press and hold this key to display a list of punctuation and special characters.
Spell	If the word entered is not recognized or if you have pressed */+ to search for a word, then Spell appears above the left selection key. Press Spell, enter the desired word, then press Save.
Clear	Press once to delete the character to the left of the cursor. Press and hold to delete characters faster.
0	Press once to accept the word and add a space. Press and hold to enter a zero.
#	Press and hold to enter 123 mode. Enter the desired number, then press and hold again to return to predictive text.
	Press once to add a period. Press 1 repeatedly to view other punctuation marks.
1	Press once to add a punctuation mark that predictive text converts to an apostrophe.
	Press and hold to enter the numeral 1.
#	Press to switch between sentence case, lowercase, or uppercase modes or to switch to the above modes without predictive text.

Turn on predictive text input

You can turn on predictive text input from the **Options** menu while writing a text message. Once enabled, predictive text is available to all features that support it.

in the upper left corner of the screen indicates predictive text is active.

ENABLE PREDICTIVE TEXT (QUICK METHOD)

While creating a new text message or calendar note, press and hold the **Options** key for two seconds.

The message **T9** prediction on is displayed and the English language dictionary is enabled (or the most recently selected dictionary).

ENABLE PREDICTIVE TEXT (AND SELECT DICTIONARY)

While creating a new text message:

- 1 Press Options, scroll to Predictive text, and press Select.
- 2 Scroll to the dictionary you want (for example, English), then press Select.

The message **T9** prediction on is displayed. The dictionary in the language is enabled.

Turn off predictive text input

While creating a new text message, press and hold the **Options** key for two seconds.

- 1 Press Options, scroll to Predictive text, and press Select.
- 2 Scroll to Prediction off, then press Select.

TIPS FOR PREDICTIVE TEXT

Check a word

When you have finished writing a word and the word is correct as shown:

Press 0 to confirm the word, enter a space, and continue by writing the next word.

OR

Insert a punctuation mark, then press 0 for a new sentence.

If the displayed word is not correct:

- Press */+ repeatedly until the word you want appears.
- Press 0 to confirm your choice and continue. OR
- Press Options, scroll to Matches, then press Select. Scroll to the correct word and press Use.
- Press 0 to confirm the word and enter a space.



Tip: When you enter punctuation at the end of a sentence, the phone switches to sentence case. The first letter of the next word automatically appears in uppercase.

ADD A WORD TO THE DICTIONARY

When the word you intended to write is not in the dictionary or when you are using */+ to cycle through the available matches, the left selection key becomes Spell.

- Select Spell and enter the word using standard text entry.
- Press Save to insert the correct word and save it to the dictionary.

INSERT NUMBERS AND SYMBOLS

The procedure for entering numbers with predictive text and standard text entry is the same. Please see "Enter numbers" on page 39.

The procedure for entering symbols with predictive text and standard text entry is the same. Please see "Enter punctuation or other characters" on page 39.

WRITE COMPOUND WORDS

- 1 Write the first part of the compound word, then press the down scroll key to accept that part.
- 2 Write the last part of the compound word.
- 3 Press 0 to enter the word.

6 Phone book



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can save up to 250 entries (contacts and associated numbers) in your phone book. Phone memory can store multiple numbers for each name (home, business, mobile, etc.), as well as text information (postal address, e-mail address, or note).





Note: The amount of detail stored for each entry may affect the total number of entries available.

SAVING CONTACTS AND NUMBERS

There are several ways to save contacts and numbers in your phone book. Instructions for the two most common ways are as follows:

SAVE A NUMBER AND NAME (USING PHONE BOOK MENU)

- 1 Press Contacts.
- 2 Scroll to Add new and press Select.
- 3 Enter the name and press **OK**.
- 4 Enter the area code (as necessary) and phone number, then press **OK**.

SAVE A NUMBER AND NAME (QUICK SAVE)

- 1 Enter the phone number using the keypad.
- 2 Press the left selection key two times (Options > Save).
- 3 Enter a name and press OK.
- 4 Press Done to return to the Start screen.



Tip: Press and hold the **Options** selection key for two seconds after entering the number to store the number only.

RECALL CONTACTS AND NUMBERS

There are several ways to recall phone book entries. Once you locate the desired name and number from the phone book, you can perform any of the following tasks: call the number, edit or add information to the selected phone book entry, or delete the entry.

From the Start screen, recall a phone book entry as follows:

- Press up or down scroll keys to display the list of phone book entries.
- Press repeatedly to scroll through the list of contacts.



Tip: When viewing the list of contacts, enter the first few letters of the desired entry. The phone book automatically jumps to that section of the phone book.

 Press Contacts, select Search, enter the first few letters of the entry, then press Search.

USE PHONE BOOK MENUS

The phone book has several menu options from which you can choose. These options appear when you press **Contacts**. Use the scroll keys to scroll to the option you want.

Option	Function
Search	Search for a specific phone book entry.
Add new	Add a new contact to your phone book.
Edit name	Edit the name of a phone book entry.
Delete	Delete phone book entries one by one or all at once.
Add number	Add a phone number to an existing contact.
Options	Display a list of phone book options, including phone book memory status and scrolling view.

Option	Function
1-touch dialing	Assign phone book entries to any of the 8 speed dialing locations.
Voice tags	Create and manage voice tags for voice dialing.
Own number	Displays your phone numbers.
Caller groups	Organize phone book entries into groups and categories and assign special ringing tones and graphics to the group.

Displaying the phone book

Phone book information can be displayed in two different ways:

- Name list-Entries displayed as a list of names
- Name+number-Name and default number displayed

When viewing the phone book, use the up or down scroll keys to scroll through the phone book entries.

Change phone book view

- 1 Press Contacts, scroll to Options, then press Select.
- 2 Select **Scrolling view**, then scroll to the view option you want.
- 3 Press OK to confirm your choice.

EDIT A NAME OR NUMBER

You can edit a phone book entry at any time.

- 1 Locate the phone book entry you wish to edit.
- 2 Press Details, then press Options.
- 3 Scroll to Edit name or Edit number and press Select.

4 Edit the name or number, then press **OK**.

ADD A NUMBER TO A PHONE BOOK ENTRY

There are several ways to add additional numbers to an existing phone book entry. Phone memory book can store up to two numbers per entry.

Once you choose to add a number, you can assign one of the following number types for the additional numbers: General, Mobile, Home, Work, or Fax.

From the phone book

- 1 Press Contacts, scroll to Add number, then press Select.
- 2 Scroll to the entry you wish to modify, then press Add number.
- 3 Scroll to the type of number you are adding (General, Mobile, Home, Work, or Fax) then press Select.
- 4 Enter the number and press **OK**.

From the Start screen

- 1 Enter the phone number using the keypad, then press **Options**.
- 2 Scroll to Add to name, then press Select.
- 3 Scroll to the desired phone book entry, then press Add number.
- 4 Scroll to the desired number type and press **Select**.

By recalling the name

- 1 Locate the phone book entry you wish to edit.
- 2 Press Details, then select an entry and press Options again.
- 3 Scroll to Add number, then press Select.
- 4 Scroll to the desired number type and press **Select**.
- 5 Enter the number and press OK.

Change the number type

Every time you create a new phone book entry, your phone automatically assigns the **General** number type to the new number. You can use a phone book entry **Options** menu to change the number type for any of the phone numbers. For example, change a number type from **Work** to **Home**.

- 1 Recall the name from the phone book.
- 2 Press Details, then scroll to highlight the number you want to modify.
- 3 Press Options, scroll to Change type, then press Select.
- 4 Scroll to the number type you want, then press Select.



Important: If you plan on using Nokia PC Suite to synchronize your phone book and your PC PIM (Personal Information Manager) application, make sure all phone numbers are assigned the correct number type. PC Sync uses this information to synchronize contacts correctly between phone and PC.

Learn about primary number

If a phone book entry contains multiple numbers, the number entered when the phone book entry was created is designated as the **primary number**. When you highlight a phone book entry and press the **Send** key, your phone dials the primary number.

Consider designating the number you dial most often (for phone book entries containing multiple numbers per name) as the primary number.

CHANGE PRIMARY NUMBER

Any phone number can be designated the primary number.

- 1 Recall the phone book entry you want to modify.
- 2 Press Details, then scroll to the number you want to set as the primary number.
- 3 Press Options, scroll to As primary no., then press Select.

DELETE STORED AND NUMBERS

You can delete a number from a phone book entry, delete all details of a contact, or delete the entire contents of your phone book. Once you delete information, it cannot be recovered.

DELETE A NUMBER

- 1 Recall the phone book entry you want to modify.
- 2 Press **Details**, then scroll to the number you want to delete.
- 3 Press Options, scroll to Delete number, then press Select, then OK.

DELETE ENTIRE PHONE BOOK ENTRY

- 1 Highlight the phone book entry you want to delete, then press **Details**.
- 2 Press Options. Scroll to Delete, press Select.
- 3 Press **OK** to delete the phone book entry (including all details).

DELETE THE ENTIRE PHONE BOOK

- 1 Press Contacts, scroll to Delete, then press Select.
- 2 Scroll to Delete all and press Select.
- 3 When you see the message Are you sure?, press OK.
- 4 Enter your security code, then press OK.
 For more information on the security code, see "Security code" on page 105.

ADD OTHER INFORMATION TO A PHONE BOOK FNTRY

Once you have created a contact, you can add an e-mail address, a mailing address, or a note to that contact.



Note: Text information can only be added to existing contacts. For example, you cannot create a new contact with only an e-mail address.

- 1 Recall the phone book entry you want to modify.
- 2 Press Details, then press Options again.
- 3 Scroll to Add detail, then press Select.
- 4 Scroll to the type of information you would like to add (E-mail, Street addr., etc.), then press Select.
- 5 Enter the information, then press **OK**.
- 6 Press the End key to return to the Start screen.

USE CALLER GROUPS

Your phone allows you to group phone book entries with similar attributes into caller groups. The five default caller groups are Family, VIP, Friends, Business, and Other. Each group has two attributes which can be defined by the user: *Group Name* and *Group Tone*.

Assign phone number to a caller group

- 1 Recall the desired phone book entry, then press **Details**.
- 2 Scroll to the desired phone number, then press **Options**.
- 3 Scroll to Caller groups, then press Select.
- 4 Scroll to the desired caller group (for example, Family), then press Select.

Edit caller group options

You can edit various aspects of a caller group.

SETTING A RINGING TONE AND GRAPHIC FOR A CALLER GROUP

- Press Contacts.
- 2 Scroll to Caller groups and press Select.
- 3 Scroll to one of the caller groups and press Select.
- 4 Scroll to one of the following functions and press Select.
 - Rename group-Enter the new name for the caller group and

press OK.

- Group ringing ton-Scroll to the desired tone and press OK.
 Default is the tone selected for the currently selected profile.
- Group logo-Choose to turn the group logo on or off for the selected caller group.
- Group members-Press Select to view group members. To add or remove a member, press Options, then select Add name or Remove name.
- **Note:** If you selected **Send graphic**, enter the recipient's phone number or recall it from phone book and press **OK**. Check with your service provider for availability of this feature.

CHECK MEMORY STATUS

You can check the percentage of phone memory that is dedicated to the phone book, that is in use, and the percentage that remains available.

- Press Contacts.
- 2 Scroll to Options, then press Select.
- 3 Scroll to Memory status and press Select.

7 Call log



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Your phone keeps a log (record) of call-related information including phone numbers and call times. The call log keeps track of:



- Missed calls
- Received calls
- Dialed numbers
- Time spent on calls
- Time spent on digital data, fax or minibrowser calls
- Amount of data transferred during data, fax or minibrowser calls

REQUIREMENTS

Before your phone can log missed or received calls properly:

- 1 You must have a subscription to caller ID service.
- 2 Your phone must be turned on and in a digital service area.
- 3 The caller must not have caller ID blocked.
- 4 Your phone time and date must be set.



Note: If the incoming call has caller ID blocked, the number cannot be recorded in the call log. If you try to view the call log, the message **No new numbers** is displayed.

CHECK MISSED OR RECEIVED CALLS, OR DIALED NUMBERS

Your phone records information about the 60 most recently missed, received, and dialed numbers (20 entries for each type of call). To view call log entries:

- 1 Press Menu 2 (Call log), then scroll to the desired call type (Missed calls, Received calls, or Dialed numbers), then press Select.
- 2 Use up and down scroll keys to scroll to the desired call log entry type (missed, received, or dialed numbers), then press Options.



Note: If the phone number recorded by the call log matches a number stored in your phone book, the name of the phone book entry is displayed.

View call log options

The table below contains a list of options available for all call log entries.

Option	Description
Call time	Shows the time when the call was missed, received or dialed.
Send message	Allows you to write and send a text message to numbers listed in the call log.
View number	Displays the phone number when call log entry matches a number found in your phone book.
Use number	Allows you to use the number shown on the screen.
Save	Saves the number in your phone book.
Delete	Removes the number from the call log.
Call	Redials the displayed number.

Use call log shortcuts

MISSED CALLS

When you miss a call(s), the message Missed calls appears on your phone's screen, along with the number of calls missed.



Important: You are notified of missed calls only if your phone was turned on and you are in a digital service area.



Note: If you chose the Forward if not answered option in Call Forwarding, your phone treats these forwarded calls as missed calls.

DIALED NUMBERS

You can view the list of dialed numbers without having to access the **Call log** menu. From the Start screen:

- 1 Press the **Send** key. The most recently dialed call is displayed.
- 2 Use up scroll or down scroll key to view the other call log entries.
- 3 Press the Send key again to redial the number displayed, or press Options to work with the selected call log entry.



Tip: To redial the last number, press the **Send** key twice.

DELETE RECENT CALL LISTS

Your phone's **Call log** uses **call lists** to store numbers of incoming, outgoing, and missed calls. Use the **Delete call logs** menu to delete the log of phone numbers dialed, received, or missed.

The AII option clears all numbers in all lists, whereas the other options clear only the numbers associated with that list.



Caution! This operation cannot be undone. Clearing the Dialed numbers call list clears the list of dialed numbers accessed by pressing the Send key.

- 1 Press Menu 2-4 (Call log > Delete call logs).
- 2 Use the up or down scroll keys to highlight the desired option: All, Missed, Dialed or Received.
- 3 Press Select to confirm your selection.

USE CALL TIMERS

Your phone uses **call timers** to track the amount of time you spend on each call. You can review phone use by checking the call timers.



Important: The actual time invoiced for calls by your service provider may vary, depending upon network features, billing round-off, and so forth.

ACCESS THE VARIOUS CALL TIMERS:

- 1 Press Menu 2-5 (Call log > Call timers).
- 2 Use up or down scroll keys to scroll through the options described in the following list:

Option	Description
Duration of last call	Displays elapsed time of the last call you made.
Duration of dialed calls	Displays total time for all outgoing calls.
Duration of received calls	Displays total time for all incoming calls.
Duration of all calls	Displays sum total for all incoming and outgoing calls.
Life timer	Shows the time used for all calls for the life of your phone. This option cannot be reset.

Option	Description
Clear timers	Clears (deletes) all call timers except Life timer.

TURN ON A CURRENT CALL TIMER

Your phone can display a call timer showing elapsed time of the current call. When the call is completed, the timer displays the call length.

- 1 Press Menu 2-5-1-1 (Call log > Call timers > Duration of last call > Show call time on display).
- 2 Scroll to On and press OK.



Tip: After a call has ended, press any key on your phone to clear the current call time from the screen.

CLEAR CALL TIMERS

- 1 Press Menu 2-5-6 (Call log > Call timers > Clear timers).
- 2 The Security code field appears.
- 3 Enter your security code and press OK.



Caution! This action cannot be undone.



Tip: If using call timers to log the amount of time spent on calls, you may want to record the information from the call timers before you clear them.

DATA TIMERS (DATA/FAX AND MINIBROWSER)

The call log records and displays the length of digital data/fax calls, as well as meters the amount of data transferred during data/fax calls. The call log also records this same information when you use the Minibrowser to access the wireless Internet.

Access data-related call timer

- For data/fax call timers, press Menu 2-6 (Call log > Data/fax calls)
- For minibrowser call timers, press Menu 2–7 (Call log > Minibrowser calls)

Data-related call timer options

The following call timer options are available for data/fax and browser calls:

- Last sent (or received) data/fax-amount of data displayed in kilobytes (kB)
- All sent (or received) data/fax-amount of data displayed in kilobytes
- Duration of last data/fax call-length of time spent on last data/fax call.
- Duration of all data/fax calls-running total of all calls.
- Clear all data/fax logs-clears all timers and data/fax logs.

Minibrowser timer options

The available options for the minibrowser call timers are similar to those listed above for data/fax calls.

8 Voice mailbox



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Voice mail is a feature that enables those who call you to leave a voice message in the event you are unable to answer your phone. When using your phone in conjunction with your service provider's voice mail system, you can retrieve your messages at any time.



STORE YOUR VOICE MAILBOX NUMBER

Before you can retrieve any voice messages, you need to store your voice mailbox number in your phone:

- 1 Press Menu 01-2-3 (Messages > Voice messages > Voice mailbox number).
- 2 Enter your voice mailbox phone number, then press OK.
 Your voice mailbox number can be up to 32 digits long.



Note: If your phone number changes, you may need to re-enter your voice mailbox number.



Tip: You can store your voice mailbox password and/or PIN number as a part of your voice mailbox number. For more information, see "Save touch tones as a phone book entry" on page 100.

SET GREETINGS

Voice greetings may vary in different wireless systems. If you need information about how to record your greeting, contact your service provider.

LISTEN TO YOUR VOICE MESSAGES



Note: There are various ways to retrieve your messages, depending on your service provider. Call your service provider if you have any questions.

LISTEN TO MESSAGES WHEN NOTIFIED

If your phone plays an alert tone and **New voice message** is displayed, press **Listen** and follow the prompts. If you want to rather listen to your messages later, press **Exit**.

LISTEN TO MESSAGES LATER

From the Start screen, press and hold 1 for two seconds.

-OR-

Press Menu 01–2–1 (Messages > Voice messages > Listen to voice messages).

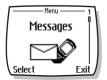
Calling voice mailbox appears on the screen. Follow the audio prompts from the voice mail system to review your messages.

Text messages



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can use the Messages menu (Menu 1) and Short Message Service (SMS) to read, write, and send text messages to another phone in your



network. You may also be able to use the minibrowser e-mail feature to send text messages to phones in other networks.



Important: When sending SMS messages, your phone may display Message sent (where service is available). This is an indication that the message has been sent by your phone to the SMS network. This is not an indication that the message has been received at the intended destination. For more details about SMS services, check with your service provider.



Note: This function can be used only if it is supported by your network operator or service provider. Only devices that offer compatible e-mail features can receive and display messages. It may require a separate subscription.

WRITE A TEXT MESSAGE

You can use the Messages menu to create and send text messages to another mobile phone in your network, to another mobile phone in another network, or to an e-mail recipient. You can also save a draft of your message in the **Outbox** folder for later use.

Create and send a text message



Important: Use this method when sending a message to recipients in the same wireless network. If the recipient has a different service provider, you may need to send the message as an e-mail (see "Create and send an e-mail message" on page 66).

- 1 From the Start screen, press Menu, then press Select.
- 2 Select Text messages, then select Create message.
- 3 Select either Text (up to 160 characters) or Numeric page (message consists of phone number only).
- Note: The ability to send a numerical page may be dependent on your wireless network. Please contact your service provider for more information on text messaging in your area.
- 4 Scroll to Add number, then press Select.
- 5 Enter the phone number of the recipient, then press OK. OR Press Search, highlight the desired number stored in your phone book, then press Select.
- 6 Press Options, scroll to Enter text, then press Select.
- 7 Enter your message.



Tip: Since the network limits the number of characters in a message, a character counter appears in the upper right-hand corner of your phone display. This phone supports 160 character SMS messages.

8 To send the message, press Options, then select Send.

USE OTHER OPTIONS

You may use the following as a shortcut for sending a new text message:

- 1 Enter the recipient's phone number, then press Options.
- 2 Scroll to Send message, then press Select.
 Continue the creation process as described.

View message options

The table below lists several options available while creating a text message. To view these options, press **Options** at the text entry screen.

Option	Description
Send	Sends the current text message to the recipients
List recipients	Adds or removes recipients to the message
Settings	Marks a message as urgent, to request a delivery receipt or to specify a callback number
Save message	Saves the current message to the desired folder
Clear screen	Clears the screen of all text and characters
Exit editor	Returns to the Messages menu
Insert name	Inserts a phone book entry into the text message
Insert number	Inserts a number or a phone book number into the text message
Use template	Adds text from a template to the current message
Insert picture	Inserts a picture into your message. Once a picture has been added, you can change or delete it from the message.
Insert word, Edit word	Inserts a word not found in the dictionary or edit a word then add it to the dictionary
Insert symbol	Enters punctuation or special characters into the current text message.
Predictive text	Enables or disables predictive text entry. Also used to select language of dictionary used

Option	Description
Matches	Displays a list of other options for the word currently displayed by predictive text

USE MESSAGE TEMPLATES

Templates are short, prewritten messages which can be recalled and inserted into new text messages when you're short on time.

- 1 Create a new text message as described in steps 1-6 in the section, "Create and send a text message" on page 62.
- 2 Instead of entering your own message, press Options, scroll to Use template, then press Select.
- 3 Scroll to one of the available templates:

"Please call"	"I am late. I will be there at"
"I'm at home. Please call"	"See you in"
"I'm at work. Please call"	"See you at"
"I'm in a meeting, call me later at"	"Sorry, I can't help you on this."
"Meeting is canceled."	"I will be arriving at"

- 4 Press Select to enter the text into your new message.
- **5** Complete the process described earlier to send your message.

You can also create a new message while browsing the Templates folder.

- 1 Press Menu 01–1–5 (Messages > Text messages > Templates).
- 2 Scroll to the desired template, then press **Select**.
- 3 Press Options, then select Edit to modify the message or Use number to select a recipient.
- 4 From the message options list, select **Send** to send your message.

LEARN ABOUT E-MAIL TEXT MESSAGES

You can also use the Messages menu to write and send text messages to a person's Internet or corporate e-mail account or to phones in other networks.



Important: The message can contain up to 160 characters. However, the length of your message is affected by the length of the e-mail address to which you are sending the message. A lengthy e-mail address will lessen the amount of available characters you can place in the message.

Create and send an e-mail message

Use the same procedure for creating and sending e-mail messages as found in the section, "Write a text message" on page 62. However, select Add e-mail, then enter the e-mail address (or press Search and recall an e-mail address stored in your phone book).

Messages to phones in other networks

Most service providers now have the ability to route e-mail messages to your phone (appearing as text messages). The following are just a few examples of how your phone e-mail address may appear:

2135551234@myserviceprovider.com username@serviceprovider.com 2135551234@mobile.myserviceprovider.com

It can be difficult to send messages to phones outside your service provider's network using traditional text messaging. However, it is possible to send a text message as an e-mail to phones outside your service provider's network (provided the recipient's phone is capable of receiving e-mail text messages).

Follow the instructions, "Write a text message" on page 62 but select **Add** e-mail. Enter the e-mail address associated with the recipient's phone number (or press **Search** and recall the e-mail address stored in your phone book).



Important: This feature may require subscription to special services. Please check with your service provider for more information and for the e-mail address assigned to your phone.

RECEIVE TEXT MESSAGES

When you receive a text message, the indicator and the text: (#) Message(s) received appears on the screen (where # is the number of new messages received).

- 1 Press Show to read the message or Exit to view it later.
- While reading the message, press Options to view the list of message options, then press Select to choose the desired option.



Note: If multiple messages have been received, then **Show** appears on the phone screen and must be selected in order to view the list of received messages. You must scroll to the message on the list which you want to read and press **Select**.

READ MESSAGES LATER

- 1 Press Menu, select the Messages menu, then Text messages.
- 2 Scroll to Inbox, then press Select.
- 3 Scroll to the desired message, then press **Select** to read the message.



Note: The ☑ icon in front of the message header indicates the message has not been read. ॄ in front of the message title indicates you have already viewed the message.

RESPOND TO A TEXT MESSAGE

You have several options when reading a text message. Pressing **Options** displays the following list of choices:

Option	Description
Delete	Deletes the current message.
Reply	Reply to the current message.
Use number	Captures phone number in the message (or from the message sender) with the option to Save (as new phone book entry), Add to name , Send message , or Call
Forward	Forwards current message to another user
Save message	Saves current message to Archive folder
Rename	Renames existing message title as seen in the message list
Edit	Edits message before saving or forwarding
Use Web link	Captures the URL in the message and allows you to go directly to that site (through the minibrowser) or to save it as a bookmark
Save address	Captures an e-mail address in the message (or the sender of an e-mail text message)



Note: Some of these options may not be visible. For example, Use **Web link** appears only when a URL is present in an SMS message.

REPLY TO A MESSAGE

You can reply to a text message either by a traditional text message or by an e-mail message. The origin of the message or the sender's wireless network affects how you reply to the incoming message.

Reply using SMS

- 1 While viewing a message, press Options.
- 2 Scroll to Reply and press Select.
- 3 Scroll to one of the following reply types and press Select:
 - Empty screen-gives you an empty text buffer
 - Original text-includes original message in the reply message
 - Template-allows you to select a template from the Templates folder
 - Standard answer templates (including: Yes; No; OK; Thank you; Congrats; Happy birthday; I love you too; Hugs and kisses; Sorry; Sorry, I'm late.)
- 4 After you write your reply, press **Options**, then select **Send**.

A copy of all sent messages (up to the memory limit) remain in your Outbox, unless you turn this feature off in Message settings.

Press **Back** to return to the Messages menu, or press the **End** key to return to the Start screen.

Reply to an e-mail message

Use the methods described above for replying to SMS messages sent from an e-mail address.



Note: If the incoming e-mail message is improperly formatted, you may be required to re-enter the e-mail address. Press **Options**, then select **List recipients**, then select **Add e-mail** to re-enter the e-mail address.

DELETE MESSAGES

You have several options for erasing individual messages or erasing the contents of an entire folder. You may need to delete older or unwanted messages in order to free up phone memory for new messages.

Learn about delete options

The **Messages** menu has an option that allows you to delete the entire contents of your folders as described below.

- All read-deletes all read messages from all folders (unread messages in Inbox remain intact).
- Inbox-deletes read messages in this folder (unread messages remain intact).
- Outbox-deletes all messages in this folder.
- Archive-deletes all messages in this folder.

Erase messages in the message folders

- 1 At the Start screen, press Menu 01-1-8 (Messages > Text messages > Delete messages).
- 2 Highlight the folder whose contents you want deleted and press **OK**.
- 3 Enter your security code (if prompted) and press OK.

Erasing individual text messages

- 1 From the Inbox, Outbox, or Archive folder, highlight the message you wish to delete.
- 2 Press Options, scroll to Delete, and press Select.
- 3 Press **OK** to confirm your choice.

Forward a message

You can forward any incoming text messages, whether they were sent as traditional text messages or as e-mail messages. You can forward a message to a single user or to a list of users.



Tip: When forwarding a message to multiple users, your recipient list can contain both phone numbers and e-mail addresses.

- 1 While viewing a message, press **Options**.
- 2 Scroll to Forward and press Select.
- 3 Select Add e-mail or Add number, then address the message. For multiple recipients, press Options again, then add additional e-mail addresses or phone numbers.
- 4 Press Options, scroll to Send, then press **OK**.

If you want to edit the forwarded message, select Enter text from the options menu prior to sending the message.

View a message settings

You can assign several settings to the text messages (new messages, replies, or forwarded messages). The following settings are available from the message **Options** menu:

- Urgent sends the message marked urgent and appears in recipient's Inbox with higher priority than other messages.
- Deliv. note lets you know when your message has been delivered.
- Callback no. includes your number (or a number that you enter or recall from the phone book) in the body of the message.

ASSIGN MESSAGE OPTIONS

- 1 After entering text, press **Options**.
- 2 Scroll to Settings and press Select.
- 3 Scroll to the desired setting, then press Mark.
- 4 Press **Done**, then press **Yes** to save changes to your message.

5 Scroll to Send, then press Select (or select a different menu option).

Learn about message memory

Messages are stored in the following locations:

- Inbox stores new messages and read messages.
- Outbox saves copies of all sent messages or messages waiting to be sent (in the event the network is temporarily unavailable).
- Archive used to file read messages and sent messages for long term storage.
- My folders used to store user-created personalized folders where messages can be saved.

A blinking \square icon indicates the text message memory is full. Before you can receive, save, or send any new messages, you must delete older messages from your Inbox, Outbox, Archive or the My folders folder.

MESSAGE SETTINGS

Specify several settings that affect the overall way your phone handles text messaging. Use Menu 01–1–9 (Messages > Text messages > Message settings) to configure the following:

- Send settings-used to specify normal or urgent priority, request delivery note, or specify that a callback number be sent automatically.
- Other settings-used to specify the font size in which messages will be displayed. Also used to configure how your phone automatically handles incoming messages when your Inbox or Outbox are full, and saves copies of sent messages automatically.

ORGANIZE TEXT MESSAGES USING FOLDERS

You have several options for storing and organizing your text messages. The following pages explain further about the various folder options.

- Inbox-Text messages you receive remain stored in your Inbox until
 you delete them or move them to the Archive folder.
- Outbox-Messages that cannot be sent immediately can be saved so you can come back to it later. Your phone stores the message in the Outbox.

If you try to send a text message and the network is unavailable, the outgoing message will be saved in the **Outbox**.

WORK WITH MESSAGES SAVED IN THE OUTBOX

- 1 From the Text messages menu, scroll to Outbox and press Select.
- 2 Scroll to the desired message, then press **Select**.
- 3 Press Options, then press Resend (or Edit if the message was a saved draft).

From this point, you have several options, including:

- Select Enter text and continue working with the message.
- Scroll to Add e-mail or Add number to add additional recipients.
- Scroll to Send, then press Select to send the message.
- Note: If a message is saved from the Outbox to another folder, then the options are the same as if the message were still in the Outbox.

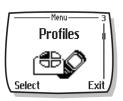
10 Personalization



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

LEARN ABOUT PROFILES

A profile refers to a group of settings you can use to customize the way your phone works. You can use the existing profiles or you can customize a profile to suit your own preferences. Some of the items you can customize are:



- Ringing options and vibrating alert
- · Ringing tones and ringing volume
- Keypad and message alert tones
- Warning tones

Your phone comes with five profiles: Normal (default setting), Silent, Meeting, Outdoor, and Pager.

SELECT A DIFFERENT PROFILE

QUICK METHOD

- 1 Press the power key (1) briefly.
- 2 Use the up and down scroll keys to scroll to the profile you want to use.
- 3 Press Select to select a profile.

USE PROFILES MENU

- 1 Press Menu 3 (Profiles).
- 2 Scroll to the profile you want to use, then press **Select**.

3 Press Select again to choose the highlighted profile.

CUSTOMIZE A PROFILE

- 1 Press Menu 3 (Profiles).
- 2 Scroll to the profile you want to customize, then press Select.
- 3 Scroll to Customize, then press Select.





Set ringing options

You can choose the way your phone rings to notify you of incoming calls. This setting does not affect text message alert tones.

- 1 From a profile Customize menu, scroll to Ringing options, then press Select.
- 2 Scroll to one of the ringing options described below, then press Select.

Option	Description
Ring	The phone rings normally.
Ascending	Ringing volume begins softly, then increases in volume if the phone is not answered.
Ring once	The phone rings once to indicate an incoming call.
Beep once	The phone beeps once to indicate an incoming call.
Silent	The phone makes no sound.

Set a ringing tone

A <u>ringing tone</u> is the melody your phone plays when you receive a call. You can set the ringing tone to a specific sound effect, or to a melody to personalize how the phone rings. Your phone can store 20 different tones.



Important: The Silent or Beep once ringing option disables any melody you may chose. To hear a ringing tone while editing a profile, make sure one of the other ringing options is selected.

- 1 From a profile Customize menu, scroll to Ringing tone and press Select.
- 2 Scroll through the options and listen. When you hear the ringing tone you want to use, press Select.

Set ringing volume

You can set the default ringing volume for incoming voice calls and message alert tones. There are five different levels of volume.

- 1 From a profile Customize menu, scroll to Ringing volume and press Select.
- 2 Scroll to an option and listen. When you hear the ringing volume you want to use, press Select.

Set a vibrating alert

Your phone has the ability to vibrate, indicating an incoming call (in addition to playing a ringing tone). Enabling a vibrating alert while selecting the Silent ringing option causes your phone to vibrate only on incoming calls.

- 1 From the selected profile's Customize menu, scroll to Vibrating alert and press Select.
- 2 Scroll to On and press Select.



Important: The phone does not vibrate when it is connected to or placed in any charging device.

Set message alert tone

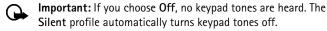
Several message alert tone options are available to indicate incoming text messages.

- 1 From the selected profile Customize menu, scroll to Message alert tone and press Select.
- 2 Scroll through the options and listen. When you hear the message alert tone you want to use, press Select.

Set keypad tones

Use the **Keypad tones** option to set the volume of the tones heard when pressing your phone keys.

- 1 From the selected profile's Customize menu, scroll to Keypad tones and press Select.
- 2 Scroll to one of the levels and press Select.



Set warning tones

You can customize the way your phone plays warning tones and the tones used for the games. Warning tones include the tones played when there is an error, during confirmations, when a battery is low, and when you need to recharge the battery.

- 1 From the selected profile's Customize menu, scroll to Warning and game tones and press Select.
- 2 Scroll to On and press Select.

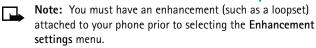
If you do not want to use warning or game tones, you can turn them off by scrolling to Off and pressing Select.

RENAME PROFILES

You can rename any of the profiles except **Normal**. You may want to use your own name for one of the profiles. When you select this profile, your name appears on the Start screen.

- 1 Press Menu 3 (Profiles).
- 2 Scroll to the desired profile and press Select.
- 3 Select Customize, scroll to Profile name, and press Select.
- 4 Enter the new name and press **OK**.
- Note: You cannot rename the Normal profile.

Select and customize an enhancement profile



To select and customize profiles for use with the headset, handsfree device (carkit), or loopset:

- 1 Press Menu 4-4 (Settings > Enhancement settings).
- 2 Scroll to Headset or Loopset and press Select.

IF YOU SELECTED HEADSET

The Default profile and Automatic answer options are your available choice.

- Default profile-Choose the profile you wish to be automatically activated when your phone is connected to a carkit.
- Automatic answer-Calls are answered automatically after one ring when connected to a car kit. Scroll to On or Off and press Select.
- Lights-Choose to keep the phone lights always on, or to shut off automatically after several seconds. Scroll to On or Automatic and press Select.

IF YOU SELECTED LOOPSET

The **Default profile** and **Automatic answer** options are available. Please refer to see "If you selected Headset" on page 78, for a description of these options. In addition, the following option is available:

Use loopset-Enables use of the LPS-4 mobile inductive loopset. Scroll to Yes or No and press Select.

DOWNLOAD A RINGING TONE

Your phone has 35 predefined ringing tones and can store up to 10 new ringing tones (sent from an Internet Web site as an SMS or created or downloaded using Nokia PC Suite).

Play, save, or delete a ringing tone

Once your phone receives a new ringing tone, the phone displays the message Ringing tone received.

- 1 Press Options, then choose Playback, Save, or Delete.
- 2 Press OK.

If you choose to save the new ringing tone, it becomes part of the ringing tone list available to you when you customize a profile (see "Customize a profile" on page 75).

Use PC Composer

You can use Nokia PC Suite PC Composer to create new ringing tones and send them to your phone using the DKU-5 cable (available as an enhancement). For more information, please refer to the *Nokia PC Suite User Guide and PC/PDA Connectivity Guide*.

Receive ringing tones from Minibrowser

You may also receive ringing tones from the Internet while in a minibrowser session. To save your tone, follow the on-screen prompts. Please see "Minibrowser" on page 129, for more information and availability of this service.

SET THE DISPLAY LANGUAGE

You can set your phone to display information in different languages.

Your possible choices are Spanish, Brazilian Portuguese, and English.



Note: Some languages may vary due to regional differences. All of these languages may not be available in your phone.

- Press Menu 4-2-1 (Settings > Phone settings > Language).
- Scroll to the language you want to use and press **Select**.

SFT THE CLOCK

Your phone contains a real-time clock that can be set two different ways: the clock can use the time and date information provided by the wireless system, or it can be set manually.

The clock will display the current time and date on the Start screen. You can also choose to hide the clock if you prefer. Please see "Display or hide the clock" on page 81.



Note: Your phone also has an alarm clock. See "Use the alarm clock" on page 112, for more information.

By default, the clock gets its information from the wireless network. If you wish to override the network clock, do the following:

Manually setting the clock

- Press Menu 4-3-1 (Settings > Time settings > Clock).
- Scroll to Set the time, then press Select. 2
- Enter the current time, then press **OK**. For example, to enter 7:30, enter 0730.
- 4 Scroll to am or pm, then press Select.

Selecting time format

- 1 Press Menu 4-3-1 (Settings > Time settings > Clock).
- 2 Scroll to Time format, then press Select.
- 3 Scroll to either 24-hour or am/pm, then press Select.

Allow the network to set the clock

- 1 Press Menu 4-3-3 (Settings > Time settings > Auto update of date and time).
- 2 Scroll to On (or Confirm first), then press Select.



Important: If you use the **Auto update** of date and time option while outside your digital network, you may be prompted to enter your own time manually (see "Manually setting the clock" on page 80). Network time will replace the time and date you set once you re-enter your digital network.



Note: If your battery has been removed or has drained outside the digital network, you may be prompted to enter your own time (once the battery is replaced/recharged, and you are still outside of the digital network).

Display or hide the clock

- 1 Press Menu 4-3-1 (Settings > Time settings > Clock).
 - Depending on the current settings, either Hide clock or Show clock is highlighted.
- 2 Press Select for Hide clock or Show clock.



CUSTOMIZE THE WELCOME SCREEN

You can set your phone to display a brief message each time you switch on your phone. The message can include your name or a reminder and can be up to 44 characters long.



Create a startup message

- 1 Press Menu 4-2-3 (Settings > Phone settings > Welcome note).
- 2 Enter the text of the startup message (using traditional text entry).
- 3 Press Options, then select Save.

LEARN ABOUT VOICE COMMANDS

The voice command feature provides handsfree operation of certain menu options and commands. Just like voice dialing, you must create a voice "tag" for the commands you want to use (please read "Assign a voice tag to a phone number" on page 94 for detailed information on voice tags).

The following table lists menu options for use with voice commands:

Option	Description
Profiles	Switch between the available profiles (Normal, Silent, Meeting, Outdoor, and Pager).
Voice mailbox	Access your voice messages.
Recorder	Start recording a memo.
Call log	Access the Call log menu.

Create a voice tag for a menu option



Important: Please see "Important notes about voice tags" on page 95 for more information on creating voice tags.

- Press Menu 6-2 (Voice > Voice commands). 1
- Scroll to the menu option you wish to tag, then press Select.
- Press Options, then select Add command. 3
- 4 Press Start.
- 5 After the tone sounds, speak the voice tag clearly into the microphone.

The phone replays, then saves the recorded tag. The 10 icon appears next to commands which have voice tags assigned.

Use a voice command



Warning! Do not use voice command in an emergency situation. In emergencies, stress causes changes in your voice, which may keep the phone from recognizing your voice command.

- At the Start screen, press and hold **Contacts** for one to two seconds. A tone is heard and Please speak now is displayed.
- 2 After the tone, clearly speak the voice tag that you recorded previously into the microphone.

The only other option for initiating a voice command is to press the headset button momentarily at the Start screen. The alert tones plays through the headset. Speak the voice tag into the headset microphone. The voice tag will playback through the headset to confirm your choice.

Work with voice tags

You can listen to an existing voice tag (in case you forgot what you recorded), rerecord a voice tag, or delete an existing tag.

- Press Menu 6-2 (Voice > Voice commands) then press Select.
- 2 Scroll to the menu option you wish to tag, then press Select.

- 3 Press Options, scroll to either Playback, Change, or Delete, and press Select.
- 4 If you chose Change, press Start to record again.
 The new tag that is recorded replaces the old information.

11 Advanced features



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.



Note: Some in-call options are network services features. Please contact your service provider for information and availability.

This chapter describes advanced calling features such as conference calling, call waiting, and the use of calling cards for calls. Not all the features described here are available in all wireless network systems.

VIEW IN-CALL OPTIONS

Your phone allows you to use a number of features during a call. These features are known as in-call options.

You cannot use all these options at all times. This section tells you when you can use a certain option.

- 1 To access an option during a call, press Options.
- **2** Scroll to one of the following options, then press **Select**:

Option	Description
Mute/End mute	Disables or enables the microphone. If mute has already been selected, End mute is displayed.
	These options affect any enhancements connected to the phone (headset, car kit).
New call	Initiates a new call while in a call (call waiting and three-way calling).
End all calls	Ends all active calls (call waiting or three-way calling).

Option	Description
Touch tones	Manually enters a touch tone string (series of tones) or search for a string in your phone.
Contacts	Views the phone book. Press Exit to close the phone book.
Menu	Display the main menu.

USE CALL FORWARDING

When you use **call forwarding**, your network redirects incoming calls to another phone number. Using this feature helps to prevent missing important phone calls.



Important: Call forwarding is a network-dependent feature and may not work the same in all networks. Contact your service provider for availability and for your network's feature codes.

Learn about call forwarding feature codes

Your network requires separate codes for activating and cancelling the various types of call forwarding. Your service provider can provide you with the necessary feature codes for these network services.

Once you store these feature codes in your phone, they are sent automatically to the network when you select one of the call forwarding options from your phone menu.

Your phone can store the following types of feature codes:

Feature code type	Description
Forward all calls	Forwards all incoming calls to the number you specify.
Forward if busy	Forwards incoming calls when you are in a call.
Forward if not answered	Forwards incoming calls to another number when you are unable to answer.
Forward if out of reach	Forwards incoming calls to another number when you are out of the network or when the phone is switched off.
Forward all data/fax calls	Forwards all incoming data/fax calls to the number you specify.
Cancel all call forwarding	Cancels any and all call forwarding options you may have set.

Store a feature code

- 1 Press Menu 4-6-5 (Settings > Network services > Network feature setting).
 - The Feature code field appears after a few seconds.
- Enter the feature code your service provider gave you (example *90 for activating Forward if busy), then press OK.
- 3 Press Select when Call forwarding is displayed.
- 4 Scroll to the type of forwarding that matches the feature code you entered (for example: Forward if busy), then press Select.
- 5 Select Activate.

The Activate feature code is now stored in your phone, and you are returned to the Feature code field.

Continue entering other feature codes (for example, *900 to cancel Forward if busy), or press the End key to return to the Start screen.



Important: Once you enter a network feature code successfully, the feature becomes visible in the Network services menu, but will not work until activated through Menu 4–6–2 (Settings > Network services > Call forwarding).

Activate/cancel call forwarding

After you store the correct feature codes, you can activate (or cancel) call forwarding as follows:

- 1 Press Menu 4-6-2 (Settings > Network services > Call forwarding).
- 2 Scroll to the desired call forwarding option, then press **Select**.
- 3 Highlight Activate and press Select.
- 4 Enter the number to which you want your calls forwarded (or press Search to recall a number from the phone book), and press OK.

Your phone calls the network to activate (or cancel) the feature you have requested. The network sends a confirmation note when the feature has been activated (or cancelled) successfully.

USF CALL WAITING

This network service lets you receive an incoming call when you are already in a call. When you receive an incoming call, your phone displays the caller's phone number (or the caller's entry in your phone book). The phone also beeps, notifying you of the incoming call.

Answering a waiting call

Press the **Send** key (or press **Answer**) to place the current active call on hold automatically and answer the new call.

Switch between the two calls

Accepting the waiting call puts your first caller on hold. To put the second caller on hold and reconnect with the first caller, press the **Send** key.

End the active call

To end the active call, simply allow the other party to hang up; the call on hold then becomes the active call.

OR

- 1 Press the End key to terminate the active call.
- 2 The network redials your phone with the call on hold. Answer this as you would any normal incoming call.

MAKE A CONFERENCE CALL

This feature allows you to talk to two people at the same time. Conference calling is a network-dependent feature.



Note: Check with your service provider to make sure this service is available in your network.

- 1 Make a call to the first participant as usual.
- When you're ready to place a call to the next party, press Options, then press New call.
- **3** Enter the number and press the **Send** key.

OR

Press **Search** to recall the number from the phone book.

- 4 Press the Send key again to connect both parties.
- 5 To end the call, press the End key.
 This action disconnects both parties.

End calls

To end a conference call, that is, to disconnect with all callers, press the End key. Or you can also press Options, then select End all calls.

Go from conference call to individual call

While all three parties are connected, pressing the Send key places the second call on hold, while keeping the first party's call active. Pressing the Send key again will switch you to the second call, while placing the first call on hold. Pressing the Send key again will bring all parties into the call.

Disconnect one party from the conference call

If you wish to disconnect with the first party and remain connected to the second party, have the first party terminate the call on his/her end.

SEND OWN CALLER ID WHEN CALLING

This feature allows you to block caller ID when you call someone (your number will not be displayed on their caller ID). This feature may only be effective when calling a number equipped with caller ID.



Note: This feature is available only when supported by the wireless network and may not function if you are roaming.



Important: This feature works on a call-by-call basis. You must enable this feature each time you want to block the sending of your own number to the recipient's caller ID.

Store the feature codes

Before you can use the Send own caller ID when calling feature, you must store the feature codes for activating this feature. Once the code is stored in your phone, it is sent automatically to the network when you select this option from your phone's menu.

1 Press Menu 4-6-5 (Settings > Network services > Network feature setting).

The Feature code field appears after a few seconds.

- 2 Enter the feature code your service provider gave you (for example, *67 for activating Send own caller ID when calling), then press OK.
- 3 Scroll to Send own caller ID when calling and press select.
- 4 Select No to assign the activation code.

Place a call without sending your number

- 1 Press Menu 4-6-4 (Settings > Network services > Send own caller ID when calling).
- 2 Scroll to No, then press Select.
- 3 Enter the desired phone number, then press OK OR

Press **Search** to recall a phone number from the phone book.

The phone automatically inserts the feature code into the dialing string and dials the phone number. The person you are calling cannot see your phone number on their caller ID.

USE AUTOMATIC REDIAL

There are times when you may not be able to place a call (for example, due to the high volume of traffic on the wireless network). When the wireless network is busy or unavailable, **Automatic redial** instructs your phone to retry the call.

ACTIVATE AUTOMATIC REDIAL

- 1 Press Menu 4-1-2 (Settings > Call settings > Automatic redial).
- 2 Scroll to On and press Select.

If the system is busy, your phone makes three additional call attempts. If you want to stop the automatic redial process before the last attempt, press the **End** key.



Important: This feature does not automatically retry a number when the number you are calling is busy.

CALLING CARD

If you wish to use a calling card for long distance calls, you can first save your calling card information into your phone. Your phone is equipped to handle up to four calling cards.

Saving calling card information

- 1 Press Menu 4–1–6 (Settings > Call settings > Calling card).
- 2 Enter your security code, then press **OK**.
- 3 Scroll to one of the four memory locations, then press **Options**.
- 4 Scroll to Edit, then press OK.
- 5 Select Dialing sequence.
- 6 Scroll to one of the three sequence types as described in the following table, then press Select.

Dialing sequence	Use for cards that require you to:
Access number + phone number + card number	Dial 1-800 access number, then phone number, then card number (+ PIN if required)
Access number + card number + phone number	Dial 1-800 access number, then card number (+ PIN if required), then phone number
Prefix + phone number + card number	Dial the prefix (any numbers that must precede the phone number) and phone number you want to dial, then card number (+ PIN if required)

7 Enter the required information (access number or prefix and card number).

- 8 Press **OK** to confirm your entries.
- 9 Press **OK** to save your changes.
- 10 Scroll to Card name, then press Select.
- 11 Enter the card name, then press **OK**.



Note: This procedure might not work with all calling cards. Please look at the back of your calling card or contact your long distance company for more information.

Choosing a calling card to use

Use Menu 4–1–6 (Settings > Call settings > Calling card) to select a calling card to use. You will be required to enter your security code.

Making calling card calls

After you have saved your calling card information in your phone, you can make a call using your calling card.

- 1 Enter the phone number, including any prefix (such as 0 or 1) that your calling card may require when you make a calling card call.
 See your calling card for instructions.
- 2 Press and hold the Send key for a few seconds until your phone displays Card call.
- 3 Your phone displays Wait for tone, then press OK.
- 4 When you hear the tone or system message, press **OK**.
- 5 Your phone displays Wait for tone, press OK again.
- **6** When you hear the tone or system message, press **OK**.

VOICE DIALING

You can dial up to 25 stored phone book numbers using the voice dialing feature. Before you can place a call using voice dialing, you must first assign a voice tag to the number. Before using voice dialing, note that:

- Voice tags are not language dependent. They are dependent on the speaker's voice.
- Voice tags are sensitive to background noise. Record them and make calls in a quiet environment.
- When recording a voice tag or making a call by saying a voice tag, hold the phone in the normal position near to your ear.
- Very short are not accepted. Use long and avoid similar for different numbers.



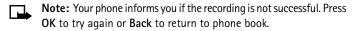
Important: You must say the name exactly as you said it when you recorded it. This may be difficult in, for example, a noisy environment or during an emergency, so you should not rely solely upon voice dialing in all circumstances.

Assign a voice tag to a phone number

You must record a voice tag (up to two seconds) for a phone number before you can use the voice dialing feature to dial it.

ADD A VOICE TAG TO A PHONE BOOK ENTRY

- 1 At the Start screen, press up scroll or down scroll keys.
- 2 Scroll to the desired phone book entry, and press **Details**.
- 3 Scroll to the phone number you want to tag and press **Options**.
- 4 Scroll to Add voice tag and press Select.
 The phone displays Press Start, then speak after the tone.
- 5 Press Start and after the tone, speak the voice tag clearly into the microphone.



The message **Voice tag saved** is displayed upon completion of the recording process. The **1** icon next to a phone number denotes that a voice tag exists for this number.

IMPORTANT NOTES ABOUT VOICE TAGS

- The recording process stops automatically; pressing Quit aborts the recording attempt.
- Voice tags are sensitive to background noise. Record tags or use voice dialing in a quiet environment.
- Unique tags are recognized more accurately. Consider using first and last name or first name, last name, and number type when tagging a number.

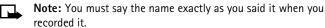
Example: "John Smith, work."

- Avoid pauses or silence as you record the voice tag.
- If the voice tag memory is full, the phone displays Delete an existing voice tag? Press OK, scroll to locate a tag to delete, then press Delete.
- Deleting a phone number deletes any associated voice tags.



Warning! Do not use a voice tag for dialing emergency numbers. In emergencies, stress causes changes in your voice, which may keep the phone from recognizing your voice command.

Dialing a number using voice dialing



- 1 At the Start screen, press and hold **Contacts** for two seconds. A tone is heard and Please speak now is displayed.
- 2 After the tone, clearly speak the voice tag that you recorded previously into the microphone.
- **Note:** If the voice tag is not recognized by the phone or if you fail to speak a tag within three seconds after the tone, the message Name not recognized is displayed, and you are returned to the Start screen.
- 3 When the voice tag is recognized, The phone book entry will be displayed on the screen for three

seconds

AND

The voice tag is replayed (through the ear piece).

After three seconds, the number is dialed.

The only other option for initiating voice dialing is to press the headset button momentarily at the Start screen. The alert tones play through the headset.

Speak the voice tag into the headset microphone. The voice tag will playback through the headset to confirm your choice.

Work with voice tags

You can listen to an existing voice tag (in case you forgot what you recorded), rerecord a voice tag, or delete an existing tag.

- 1 At the Start screen, press Contacts.
- 2 Scroll to Voice tags, then press Select.
- **Note:** This option displays a list of only those names and numbers that have been assigned a voice tag.
- 3 Scroll to the phone number voice tag you want to edit, then press Options.
- 4 Scroll to either Playback, Change, or Delete, and press Select.
- 5 If you chose Change, press Start to begin rerecording.
 The new tag that is recorded replaces the old information.

1-TOUCH DIALING

When a phone number is assigned to one of the 1-touch dialing locations (2-9), you can call the phone number in either of the following ways:

 Press the number key that corresponds to a 1-touch dialing location and press the Send key. Press and hold the number key that corresponds to a 1-touch dialing location until the call is initiated.

1 is preassigned to dial your voice mailbox number and cannot be reassigned.

Set up 1-touch dialing

If you want to assign a number to one of the number keys (2-9), do the following:

- 1 Press Contacts.
- 2 Scroll to 1-touch dialing and press Select.
- 3 Scroll to the desired number key (2-9), and press Assign.



Note: If a phone number is already assigned to a key, the phone book entry name is displayed and the left selection key is **Options**.

4 Enter the phone number manually, or press Search to locate a phone book entry. Select the desired name or entry from the phone book. If more than one number is stored for that entry, scroll to the desired number and press Select.

1-touch dialing options

You can change or delete (clear) numbers assigned to 1-touch dialing or view the number assigned to a key from the 1-touch dialing menu.

- Press Contacts.
- 2 Scroll to 1-touch dialing and press Select.
- 3 Scroll to a key that is assigned a number, then press **Options**.
- 4 Scroll to either View number, Change, or Delete, then press Select.

LEARN ABOUT CALLER GROUPS

You can group phone book entries using one of the existing categories (Family, VIP, Friends, Business, and Other). Each group has its own unique ringing tone and logo.

When you receive a call from a number assigned to a caller group, the ringing tone for that caller group is used, and the caller group's logo is displayed on the screen. This feature can help you identify incoming calls more quickly.

ADD A NUMBER TO A CALLER GROUP

- 1 At the Start screen, press the up or down scroll keys.
- 2 Scroll to the desired phone book entry, and press **Details**.
- 3 Scroll to the phone number you want to use and press **Options**.
- 4 Scroll to Caller groups, and press Select.
- 5 Scroll to the desired caller group (for example, Friends), and press Select.

SELECT A RINGING TONE AND GRAPHIC FOR A CALLER GROUP

- Press Contacts.
- 2 Scroll to Caller groups and press Select.
- 3 Scroll to one of the caller groups and press Select.
- 4 Scroll to one of the following options and press **Select**:

Option	Description
Rename group	Renames the selected caller group.
Group ringing tone	Selects a ringing tone for this group. Scroll through list of ringing tones, then press OK .
Group logo	Views, activates or deactivates the group logo.
Group members	Assigns other phone book entries to the selected caller group.

USE TOUCH TONES



Warning: If you send touch tones while in analog mode, be careful not to send confidential information. Check your phone display for the **D** icon, indicating the presence of a digital network.

Touch tones (sometimes known as DTMF tones) are those tones produced when you press the keys on your phone keypad. You can use touch tones for many automated dial-up services such as banking and airlines, or for entering your voice mailbox number and password.

Touch tones are sent during an active call. You can send them manually from your phone keypad, or send them automatically by saving them in your phone.

Set manual touch tone options

You may customize the way your phone sends the touch tones for optimum performance with the system you are calling.

SET TOUCH TONE TYPE

- 1 Press Menu 4-2-2-1 (Settings > Phone settings > Touch tones > Manual touch tones).
- 2 Select one of the following options, then press **Select**:

Option	Description
Continuous	Tone sounds for as long as you press and hold a key.
Fixed	Sends tones of the duration you specify in the Touch tone length option.
Off	Turns off tones. No tones are sent when you press a key.

SET FIXED TOUCH TONE LENGTH

You can also specify touch tone length when using the Fixed option.

- 1 Press Menu 4-2-2-2 (Settings > Phone settings > Touch tones > Touch tone length).
- 2 Scroll to Short (1/10 seconds) or Long (1/2 seconds), then press Select.

Send a touch tone string manually

Before you begin, make sure that Manual touch tones is not set to Off.

- 1 During a call to the automated service, press Options, scroll to Touch tones, and press Select.
- 2 Enter the touch tone string from your phone keypad as required by the service you are calling, then press Tones.

Send touch tone string from phone book

You can save a touch tone string as a separate phone book entry, then recall and send the string using the in-call menu option **Touch tones**.

SAVE TOUCH TONES AS A PHONE BOOK ENTRY

Save the touch tone string (including any pause or wait characters that may be required) to a new entry in the phone book. For more information on saving and number to your phone book see "Saving contacts and numbers" on page 46.

RECALL A TOUCH TONE STRING FROM THE PHONE BOOK

- During a call to the automated service, press Options, scroll to Touch tones, and press Select.
- Press Search, scroll to the touch tone string entry in your phone book, then press OK.
- 3 Press Tones to send the touch tones.

Store a touch tone string with phone number

You can store touch tone strings (for example, voice mailbox number and PIN code) as a part of a phone book entry. Once the string is stored, it is sent automatically (instead of entering the touch tones from the keypad).

- 1 Enter the phone number of the automated service.
- 2 Use the */+ key to enter a w or p after the number.
 - w (wait)-The phone waits for you to press Send. When you press Send, the phone sends the touch tone string you've saved.
 - p (pause)-The phone pauses for 2.5 seconds, then automatically sends the touch tone string you have saved.
- 3 Enter the touch tone string after the w or p characters as required by the service.

```
Example: 214-555-1234w1234#p5678#
```

4 Save this phone book entry as you normally would.

Once the touch tone string is stored with the phone number, you can now call the number and have the touch tone strings sent automatically.

LINK PHONE BOOK ENTRIES

This feature allows you to store a phone number in one phone book location and link it to another phone book entry.

For example, linking the phone number of an automated service (for example, automated banking service) with a touch tone string entry in your phone book (for example, account and PIN numbers) automatically recalls and sends the touch tone string when you call the service.

USE LINKING OPTIONS

- 1 Store the touch tone string into your phone book.
- 2 Assign the phone book entry with the touch tones to a 1-touch dialing location (for example, location 3). For more information on 1-touch dialing, see "1-touch dialing" on page 96.
- 3 Edit the automated service's phone number by adding +n to the end of the phone number (where n is the 1-touch dialing location).

Example: 214-555-1234+3

- 4 Press **OK** to save your changes.
- 5 Dial the automated service's number from your phone book. Your phone automatically sends the touch tones when the call connects.



Important: You may need to enter a pause (p) before the + in order to account for delays in the automated system answering your call (for example, 214-555-1234p+3).

LEARN ABOUT VOICE RECORDER

Voice recorder allows you to record audio memos and store them in your phone. Use this feature to record things such as phone numbers and personal memos. Total time available for all memos is one minute (up to 60 seconds). Maximum length of a single message is one minute (up to 60 seconds).

The maximum number and length of remaining memos depends on how much memory is still available. A countdown timer is displayed while recording and shows remaining record time.

Record a memo

- 1 Press Menu 6-3-1 (Voice > Voice recorder > Record).
- 2 After the tone, begin recording your memo; when you finish recording, press Stop.
- 3 Enter the subject of the voice memo, then press OK.

NOTES

- Press Back (instead of entering a subject) to discard the memo without saving.
- Pressing OK without entering a subject to assign the default name (Recording) to the memo.

Work with recorded memos

To view a list of recorded memos:

- 1 Press Menu 6-3-2 (Voice > Voice recorder > Recordings list).
- 2 Scroll through the list of memos, then press **Options**.

The following options are available:

Option	Description
Playback	Plays back the selected message through the earpiece (phone or headset).
Delete	Deletes selected voice memo.
Edit title	Edits the subject of the memo, or renames the memo.
Add alarm/ Alarm	Adds (edits, or removes) a reminder alarm for the memo.

Notes about voice recorder

- An incoming call interrupts voice memo playback. When the call is complete, the phone returns to the Options menu for the selected voice memo.
- An incoming call stops voice memo recording. The recorded memo is automatically saved with the default name.
- You can enter numbers from the keypad during memo playback (For example, when voice memo contains a phone number). Pressing the Send key interrupts voice memo playback and places the call.

12 Security and System settings



Warning! Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

Your phone has a variety of security features that help prevent some of the following:



- Placing accidental or unintentional calls
- Unauthorized use of your phone
- Placing and accepting calls from certain phone numbers
- Accidental erasing of information or restoring factory settings

LOCK KEYPAD (KEYGUARD)

With keypad lock (Keyguard) you can temporarily lock your phone keypad and prevent the accidental placing of calls or pressing of the keypad (for example, when the phone is in your pocket or in your purse).



Activate/deactivate Keyguard

Press Menu 10 or press Menu followed by */+ (within three seconds) to activate Keyguard. It is possible to answer a call, even though Keyguard is activated. Press the Send key to answer the call. When the call has ended, the keypad remains locked.





Important: ─0 appears at the top of the display. The left softkey is also labeled **Unlock**.

UNLOCK KEYPAD

Press Unlock followed by */+ (within three seconds) to deactivate Keyguard and unlock your phone keypad.



Important: When the phone is locked, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

SECURITY CODE

Your phone prompts you for a five-digit security code for certain features and commands. Access is granted only after the correct security code has been entered successfully. The default security code is 12345. It is recommended that you change this code at once, write it down, and store it in a safe place away from your phone.



Important: When entering your security code, ***** is displayed on the screen to keep others from viewing your code.

Correct entry errors

You can delete the last entered digit by pressing Clear (or by pressing and holding Clear to delete all the digits more quickly). Enter the correct code or press Back to exit. If you enter an incorrect security code, Code error will appear five times in a row, and your phone will not accept any entries for the next five minutes.

Change your security code

- Press Menu 4-5-2-4 (Settings > Security settings > Access codes > Change security code) and press Select.
- 2 Enter the existing (or default) security code and press **OK**.
- 3 Enter the new five-digit security code and press OK.
- 4 Reenter the new five-digit security code for verification, then press OK.

Your phone displays the confirmation message Security code changed.



Important: If you change your security code and don not remember the new code, contact your service provider. Once you change your security code, the default code is no longer valid.

PHONE LOCK

This feature protects your phone from unauthorized outgoing calls or unauthorized access to information stored in the phone. When phone lock is activated, **Phone locked** is displayed each time you turn your phone on or off.



After pressing either **Contacts** or **Menu**, you must enter your lock code. Once your lock code has been accepted, your phone will function normally.



Important: Call not allowed is displayed if you attempt to place a call while phone is locked.



Important: When the phone is locked, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

Learn about the lock code

In addition to a security code, your phone also has a lock code. You will need the lock code to activate and deactivate the phone lock feature, or to change your lock code.

The default lock code is 1234. If you enter an incorrect lock code five times in a row, your phone will prompt you for the security code (see page 105).

CHANGE YOUR LOCK CODE

- 1 Enter Menu 4-5-2-3 (Settings > Security settings > Access codes > Change lock code) and press Select.
- 2 Enter the current (or default) lock code and press **OK**.
- 3 Enter the new lock code and press OK.
- 4 Reenter the new lock code for verification, then press **OK**.



Important: When you change your lock code, make sure you store it in a safe place, away from your phone. Avoid entering access codes similar to emergency numbers to prevent accidental emergency calls.

Activating and deactivating phone lock

- 1 Press Menu 4-5-2-1 (Settings > Security settings > Access codes > Phone lock).
- 2 Enter the lock code, then press OK.
- 3 Scroll to On or Off, then press Select.
- 4 Turn your phone off and back on to complete the phone lock activation (or deactivation).

Answer a call with phone lock on

Press the Send key or Answer.

Allowed number when phone locked

When phone lock is on, the only outgoing calls that can be made are to the following numbers:

- The emergency number programmed into your phone (for example, 911 or other official emergency number).
- The number stored in the Allowed number when phone locked location.

Store the unlocked phone number

- 1 Press Menu 4-5-2-2 (Settings > Security settings > Access codes > Allowed number when phone locked).
- 2 Enter the lock code and press **OK**.
- 3 Enter the phone number (or press Search and recall the number from the phone book), then press Select.

Calling the allowed phone number

At the Start screen, press up scroll or down scroll key. The number is displayed. Press the **Send** key to place the call.



Important: Phone lock must be activated to use this feature.

CALL RESTRICTIONS

This feature allows you to restrict incoming and outgoing calls. You can restrict all calls or create a custom list of numbers to restrict.

Learn about restriction options

When you select either Restrict outgoing calls or Restrict incoming calls from the Security settings options, your options are as follows:

- Select-Used to display a list of all available restricted numbers. Select those numbers you want to restrict from this screen.
- Add restriction-Used to create your own list of restricted numbers

Once you have added at least one restriction to either the outgoing or incoming calls list, the following options become visible:

- Edit- Used to edit an existing outgoing call restriction
- Delete-Used to delete call restrictions from the list



Important: When calls are restricted, calls may be possible to the emergency number programmed into your phone (for example, 911 or other official emergency number).

Adding a call restriction

You can add up to 15 restrictions for outgoing calls and 15 restrictions for incoming calls. The maximum number of characters you can enter for each restriction is 15.

- Press Menu 4-5-1 (Settings > Security settings > Call restrictions). 1
- Enter the security code and press **OK**. 2
- Select either Restrict outgoing calls or Restrict incoming calls. 3
- 4 Scroll to Add restriction and press Select.
- Enter the number string you wish to restrict and press **OK**. For example:
 - If you wish to restrict all calls that begin with 1, enter 1.
 - If you wish to restrict all calls that begin with 1972, enter 1972.
 - If you wish to restrict all calls that begin with 214, enter 214.
- 6 Enter a name to identify this restriction, or just press **OK**.

Note: When creating a new restriction, that restriction is automatically selected (enabled) at the time it is saved.

Select call restrictions

- Press Menu 4-5-1 (Settings > Security settings > Call restrictions).
- Enter your security code and press **OK**. 2
- Scroll to Restrict outgoing calls or Restrict incoming calls and press Select.
- 4 Scroll to Select and press Select.
- Scroll to each restriction you wish to use and press Mark; press Unmark to deactivate existing restrictions.
- 6 Press Done, then press Yes to save the changes you have made.

Edit call restrictions

You can edit the name or number of an entry in the call restrictions list.

- 1 Press Menu 4–5–1 (Settings > Security settings > Call restrictions).
- 2 Enter your security code and press Select.
- 3 Scroll to Restrict outgoing calls or Restrict incoming calls and press Select.
- 4 Scroll to Edit and press Select.
- 5 Scroll to the restriction you wish to edit, then press **OK**.
- **Note:** If no name has been entered for a restriction, the restricted number will be displayed.
- 6 Edit the number (as needed), then press OK.
- 7 Edit the name (as needed), then press **OK**.

Erasing call restrictions

You may want to delete a restriction that is no longer needed.

- 1 Press Menu 4-5-1 (Settings > Security settings > Call restrictions).
- 2 Enter your security code and press **OK**.
- 3 Scroll to Restrict outgoing calls or Restrict incoming calls and press Select.
- 4 Scroll to Delete and press Select.
- 5 Scroll to the restriction you wish to delete, then press **OK**.
- 6 Press **OK** again to delete restriction.

AUTOMATIC UPDATE OF SERVICE

Your phone is capable of receiving updates to wireless services sent to your phone by your service provider. Use Menu 4-1-4 (Settings > Call settings > Auto-update of service) to turn this feature on or off.

LEARN ABOUT SYSTEM SELECTION

The System menu Menu 4–7 (Settings > System) allows you to customize the way your phone chooses a system in which to operate while you are within or outside of your primary or home system.

Your phone is set to search for the most cost-effective system. If your phone cannot find a preferred system, it selects a system automatically based on the option you choose in the **System** menu.



Important: Before selecting an item in the **System** menu, contact your service provider to find out how your selection will affect your service charges.

View Roaming options

The menu options you see in your phone are based on your service provider's network. Their network determines which options actually appear in the phone menu. The following is a description of the options that may appear in your phone:

Option	Description
Home only	You can make and receive calls in your home area only. While roaming, No Service appears and you cannot make or receive calls.
Automatic	Your phone automatically selects the best available system.

13 Organizer

Your phone has a calendar, alarm clock, stopwatch, and contact database—everything you need in an organizer or personal digital assistant.



USE THE ALARM CLOCK

Your phone alarm clock can be set to sound an alarm at a time you specify. The alarm clock uses the clock time format (12-hour or 24-hour format). The picon, displayed on the Start screen, indicates that an alarm is set. The alarm clock will work, regardless if the phone is on or off.



Important: The alarm clock works in conjunction with your phone clock. Make sure the time and date are correct before using this feature.

Set the alarm

- 1 Press Menu 8-1 (Organizer > Alarm clock), then press Select.
- 2 Enter the alarm time, then press OK.
- 3 Select am or pm, then press OK.

Respond to an alarm

At the time of the alarm, the phone sounds an alert tone, displays an animated message, and flashes its lights.

Pressing Stop or the End key stops the alarm from sounding, and returns you to the Start screen.

SNOOZING

There are several ways you can enable the Snooze feature:

- 1 Press the **Snooze** selection key.
- 2 Press any key (except the End key).

3 Allow the alarm to sound for one minute.

Once snooze is enabled, the alarm will sound again in 10 minutes.

Alarm when phone power is off

If the alarm time is reached while the phone is switched off, the phone switches itself on and starts sounding the alarm tone. If you press **Stop**, the phone asks whether you want to activate the phone for calls. Press **No** to switch off the phone or **Yes** to make and receive calls.



Warning! Do not press **Yes** when wireless phone use is prohibited or when it may cause interference or danger.

Alarm clock notes

- The alarm clock volume is determined by current volume and tone settings.
- If you have selected the Silent or Beep once ringing tone, the alarm clock beeps once.

CALENDAR



Warning! Your phone must be switched on to use the calendar feature. Do not switch on the phone when wireless phone use is prohibited or when it may cause interference or danger.

You can use your phone calendar to record notes to remind you of appointments such as meetings, phone calls, birthdays, or general reminders. Alarms can also be set to notify you of your appointments or notes.

You can also use the DKU-5 cable in conjunction with Nokia PC Suite to synchronize your PIM application calendar with your phone calendar, keeping you up-to-date when you are away from you office or PC.

Calendar Options menu

The calendar Options menu displays a list of calendar options: View day, Make a note, Go to date, and the calendar Settings menu.

Learn about Calendar views

WEEK LIST

From the Organizer menu, scroll to Calendar, and press Select. Use the week list to view four weeks at a glance.

When you view the calendar, notice that today's date is highlighted. Use the scroll keys to move to a different date.



- Use 2 to scroll up.
- Use 8 to scroll down.
- Use 4 to scroll left.
- Use 6 to scroll right.
- Use the left selection key to view the **Options** for that day.

Day view

From the week list, scroll to the desired day. Press Options, then select View day. The day view allows you to scroll through the notes made for the selected day.



The **Options** list for day view includes:

- View the highlighted note.
- Make a note create a new note for the selected day.
- Delete, Edit, Move, or Repeat the highlighted note (every day, every week, biweekly, every month or every year).
- Go to date jump to a specific date.

- Copy-allows you to copy the note to another day
- Send note-provides various options for sending the current note (via SMS. Please check for available in your network)
- Settings-allows you to set the date, time, date format, time format
 and week format for the calendar. The Auto delete setting allows you
 to delete old notes after a specified period of time. However, repeat
 notes (for example, birthday or anniversary notes) will not be deleted.

NOTE VIEW

From the day view, scroll to the desired note. Press **Options**, scroll to **View**, and press **Select**. The details of the selected note are displayed.

The **Options** list for note view include:

- Delete, Edit, Move, or Repeat the current note (every day, every week, biweekly or every year).
- Copy-allows you to copy the note to another day.
- Settings-allows you to set the date, time, date format, date separator, time format and week format for the calendar. The Auto delete setting allows you to delete old notes after a specified period of time. However, repeat notes (for example, birthday or anniversary notes) will not be deleted.

Add a calendar note

Note: Predictive text input is available for Calendar notes.

- 1 From the day list view, scroll to the desired day and press **Options**.
- 2 Select Make a note.
- 3 Scroll to one of the following note types and press Select:
 - Meeting-Enter the note (or press Options, then Find to recall a name from the phone book) and press Select. Enter the time and press OK.
 - Call-Enter the desired phone number (or press Options then Find to recall it from phone book) and press Select. Enter the time and press OK.
 - Birthday-Enter the person's name (or press Options then Find to recall it from phone book) and press Select. Press Options then Save and enter date of birth and year (optional). Press OK.
 - Memo-Enter the note. Press Options then select Save. Enter a
 date for the memo, then press OK.
 - Reminder-Enter the note. Press Options then Save.
- 4 Scroll to the desired alarm option (With tone, No alarm, or Silent), then press Select.

The presence of an alarm is indicated by $\ \ \ \ \ \ \ \ \ \$ when you view the notes.

WHEN THE ALARM SOUNDS FOR A NOTE

The phone flashes its lights, beeps, and displays the note. When a **Call** note is displayed, you can call the number by pressing the **Send** key.

To stop the alarm, press Exit or the End key.

CALCULATOR

You can use your phone calculator to add, subtract, multiply, or divide numbers and convert currencies.



Warning! Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

Use the calculator

- From the Organizer menu, scroll to Calculator, and press Select.
- Enter the first number in the calculation (press # for decimal point).
- 3 To add, press */+ once (+ appears); to subtract, press */+ twice (-); to multiply, press */+ three times (*); to divide, press */+ four times (/).
- 4 You can also press Options, scroll to Add, Subtract, Multiply, Divide, Square, or Square root, and press Select.
- 5 Enter the second number. Repeat steps three and four as many times as necessary.
- Note: A subtotal is shown after you enter the next operant (+, -, *. or /).
- 6 For a total, press Options twice.
- 7 To start a new calculation, press and hold Clear for two seconds.
- Note: This calculator has limited accuracy and rounding errors may occur, especially in long divisions.

Convert currency

You can use the calculator to first set the exchange rate and then to calculate the exchange value.

SET THE EXCHANGE RATE

Press Menu 7-1 (Menu > Tools > Calculator), and then press Options.

- 2 Use the up scroll or down scroll key to scroll to Exchange rate and press Select.
- 3 Select the exchange rate: Foreign units converted to home units or Home units converted to foreign units.
- 4 Press Select.

The exchange rate box opens, with the number 1.

5 Enter the appropriate number and press **OK**.

The number 1 is overwritten by the number you entered. To enter a decimal point, press #.

6 Press OK.

The Exchange rate saved message appears.

CALCULATE CURRENCY USING THE EXCHANGE RATE

- 1 Press Menu 8-4 (Menu > Organizer > Calculator).
- 2 Enter the number of units for the exchange rate.
- 3 Press Options and scroll to To home or To foreign.
 - To home converts foreign units of currency to home units using the exchange rate you entered.
 - To foreign converts home units of currency to foreign units using the exchange rate you entered.
- 4 Press OK.

Convert currency

You can use the calculator to first set the exchange rate and then to calculate the exchange value.

SET THE EXCHANGE RATE

- 1 Press Menu 8-4 (Menu > Organizer > Calculator), and then press Options.
- 2 Use up scroll key or down scroll key to scroll to Exchange rate and press Select.

- 3 Select the exchange rate: Visited units to a home unit or Home units to a visited units.
- 4 Press Select.

The exchange rate box opens, with the number 1.

5 Enter the appropriate number and press **OK**.

The number 1 is overwritten by the number you entered. To enter a decimal point, press #.

6 Press OK.

The Exchange rate saved message appears.

CALCULATE CURRENCY USING THE EXCHANGE RATE

- 1 Press Menu 8-4 (Menu > Organizer > Calculator).
- 2 Enter the number of units for the exchange rate.
- 3 Press Options and scroll to To home or To foreign.
 - To home converts foreign units of currency to home units using the exchange rate you entered.
 - To foreign converts home units of currency to foreign units using the exchange rate you entered. Press **OK**.

STOPWATCH

You can use your phone **Stopwatch** feature to time an event in hours, minutes and seconds. The event time can be saved, viewed, or deleted.



Warning! Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



Important: Using the stopwatch consumes the battery and the operating time of the phone will be reduced. Be careful not to let it run in the background when performing other operations with your phone.

Time an event using split timing

The split time function allows you to measure the total time for an event, yet allows you to capture the elapsed time at various intervals. To measure split time:

- 1 From the Organizer menu, scroll to Stopwatch and press Select.
- 2 Scroll to Split timing, then press Select.
- 3 Press Start.

The running time appears on the display.

Once the split timer has started, you can:

- Press Split to display the split time while the timer continues to display elapsed time.
- Press Stop to stop the timer and view the total elapsed time.

If you continue pressing Split, the most recent split time appears at the top of the list of split times. You can scroll to review previous times.

Time an event using lap timing

The lap time function allows you to measure the amount of time it takes to complete a cycle or lap. To measure lap time:

- 1 From the Organizer menu, scroll to Stopwatch and press Select.
- 2 Scroll to Lap timing, then press Select.
- 3 Press Start.

The running time appears on the display.

Once the lap timer has started, you can:

- Press Stop to stop the timer and view the elapsed time.
- Press Lap to display the lap time; the timer restarts from zero.

If you continue pressing Lap, the most recent lap time appears at the top of the list of lap times. You can scroll to review previous times.

Press **Stop** to stop the timer. The final lap time is displayed.

View timing options

Once you have stopped timing an event (using lap or split), you have the option to save the information, reset the stopwatch, or continue timing (split timing only).

While stopwatch is running, press Stop, then press Options. Select one of the following:

- Save saves the current timing data. Enter a name, then press OK.
- Reset clears the current timing data and resets the timer.
- Start restarts the split timer from the point the timer was stopped.

Choose other stopwatch options

You can choose the following options from the Stopwatch menu.

Option	Description
Continue	Allows you to re-display active timer (for example, if you receive a call while the timer is still running).
Show last time	Allows you to view the last measured time.
View times	Allows you to view the list of saved times.
Delete times	Allows you to delete the saved times. You can delete the saved times one by one or all at once.



Note: If you receive a call while using the stopwatch, the timer continues running in the background. After ending the call, you can redisplay the timer by doing the following:

- 1 Press Menu 8-4-1 (Organizer > Stopwatch > Continue).
- 2 Press Select.

14) Applications



Note: Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



This menu allows the management of JavaTM applications installed on your phone or

downloaded from your PC using Nokia PC Suite. Your phone software includes Java applications designed for your Nokia phone. Some service providers offer other applications via mobile Internet services.



Note: This feature shares memory space with other features. For more information, see "Memory use" on page 23.

LAUNCHING AN APPLICATION

- 1 Press Menu 9-1 (Applications Select app.) and scroll to an application (name depends on the application) and press Options.
 If the selection is a single application it will launch. Otherwise, a list of applications is displayed corresponding to the selected application set.
- 2 Scroll to the desired application and press Select.
 The application launches.



Tip: If an application uses the whole display area, no softkey selections are displayed. Press one of the selection keys to show the options list. Then select one of the options or press **Back** to continue with the application.

OTHER OPTIONS AVAILABLE FOR APPLICATIONS

Open-opens the application or application set from the phone.

- **Delete**-deletes the application or application set from the phone.
- Web access allows the user to restrict the MIDlet Suite's access to the network.
- Check version checks availability of a new version of the application is for download from the mobile Internet services.
- Service settings-An active MIDIet may require network access to make network connections to update or obtain new data. This setting allows the user to set some restriction on this access, and applies to all MIDIets within the suite requesting network access.
- **Details** gives additional information about the application.
- **Note:** Check the version; the Internet link may not be available for all applications.

DOWNLOAD A NEW APPLICATION



Note: The ability to download applications over the air is dependent on your service provider. To learn more about this function, contact your service provider.

You can use the Internet to download Java applications to your PC, then use the Java installer from PC Suite to download the applications in your phone.



Note: Nokia does not provide any warranty for non-Nokia applications. If you choose to download and install an application, you should take the same precautions, for security or content, as you would with any Internet site.

Check memory status

Allows you to view memory available for Applications

- Press Menu, scroll to Applications, then select Memory.
- You will see the amount of Free memory and the Total memory.
 This will vary according to the number of applications you have

installed.

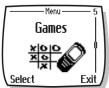


Note: This feature utilizes shared memory. For a detailed explanation on memory, see "Memory use" on page 23.

15 Games



Warning! Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



You can use your phone not only for communication but also for some serious fun.

Your phone offers you four games from which to choose.

- In Snake II, you feed the snake with as many goodies as possible. The longer the snake's tail grows, the higher your score is.
- In Space Impact II, you try to destroy the falling asteroids before they destroy you.
- In Bumper, you can play an exciting game of pinball. Increase your score by keeping the ball on the table using the flippers.

Game control

You phone supports two-way scrolling while playing the games:

- Use the 2 key to scroll up.
- Use the 8 key to scroll down.
- Use the 4 key to scroll left.
- Use the 6 key to scroll right.

Start a new game

- 1 Press Menu 5-1 (Games > Select game), scroll to the desired game, and press Select.
- 2 Choose an option and press Select.

LEARN ABOUT GAME OPTIONS

Use the option Instructions to learn how to play the game. With the option Level you can choose the difficulty level of the game.

In Snake II you can pause the game by pressing either selection key and resume a paused game with Continue. Use Top score (available in some games) to check the high score in your phone.

Game settings

The following settings are available for all games:

Option	Description
Game sounds	Turns game sound effects On or Off.
Game lights	Turns screen lights On or Off during game play only.
Shakes	Turns game vibrating effects On or Off .

16 Your phone and other devices

Your phone is capable of interacting with, or connecting to a computer using the DKU-5 serial cable.

Your phone can exchange information with other desktop and laptop PCs. Your phone can also function as a wireless modem when connected to PCs.



Warning! Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.

PC CONNECTIVITY

You can make a serial connection between your Nokia phone and compatible PC using the DKU-5 serial cable. This cable is available for purchase as an enhancement, or may be included in your sales package.

Once your phone and PC are connected, you can access phone information from your PC, or use your phone as a wireless modem for digital data/fax calls.



Important: Digital data services (including IS95, IS2000, 2G and 3G packet data) are network-dependent features and may require a subscription to these services. Please check with your service provider for the availability of digital data services.

Nokia PC Suite

Once your phone is connected to your PC, you can use the various components of Nokia PC Suite to perform the following functions:

- Make a backup copy of the data in your phone (Content Copier).
- Edit phone book and numbers, profiles, and settings using your PC keyboard (Phone Editor).

 Synchronize your phone book and reminders with Personal Information Manager (PIM) applications such as Microsoft Outlook, Outlook Express, and Lotus Organizer (PC Sync).

Please refer to the document *Nokia PC Suite User Guide and PC/PDA Connectivity Guide* for installation and setup instructions.

Modem setup

You can use your Nokia phone as a modem with your laptop computer or handheld device, giving you access to the Internet (for e-mail and Web browsing) or corporate networks wherever you are.

For more information on modem setup for PCs and handheld devices, please refer to the *Nokia PC Suite User Guide and PC/PDA Connectivity Guide*.

Download software

PC Suite, the PC Suite/PC connectivity user guide, and all related software is provided to you free of charge. These items can be downloaded from the US mobile phone products section at:

http://www.nokia.com

17 Minibrowser

The minibrowser feature allows you to access special Internet content designed specifically for viewing from your mobile phone. You can use your minibrowser to view news, get weather



reports, check flight times, access financial information, download new ringing tones or graphics, etc. The browser menu allows you to save addresses of Web sites as bookmarks, so you can return to your favorite sites quickly and easily.



Warning! Your phone must be switched on to use this function. Do not switch the phone on when wireless phone use is prohibited or when it may cause interference or danger.



Important: This feature is available only if your service provider's network supports mobile internet access. Your service provider may also require that you subscribe to this additional service. For more information, contact your service provider.

UNDERSTAND BROWSING SESSIONS AND INDICATORS

When you launch the minibrowser, two icons appear on the screen:

Minibrowser icon (you are in a minibrowser session)High-speed data icon (you are being billed accordingly)

The minibrowser disconnects you from the network after a period of inactivity. This is normal and is designed to minimize your bill. You may find, however, that you are billed for several network connections within a single session.

When the minibrowser disconnects from the network, only the browser icon 🏵 remains. While browsing, you can still access pages stored in memory without being connected to the Internet.

However, if you navigate to a page that is not stored in memory, a new connection is established and you will be billed accordingly.

LAUNCHING THE MINIBROWSER

The first time you launch the minibrowser, you go through a security setup process that takes three to five minutes (follow the on-screen prompts).

- 1 Press Menu, scroll to Minibrowser, then press Connect.
 A message appears, reminding you that you may be billed for the connection time. (You can disable this message. See "Disable minibrowser confirmations" on page 135.)
- 2 Press Yes.

After a few seconds, the **Home Page** appears. Your menu may vary according to your service provider.

You can also launch the minibrowser by pressing and holding the 0 key from the Start screen.

Home Page

- 1 News
- 2 Yahoo
- 3 Weather
- 4 Finance

END A BROWSING SESSION

To end a minibrowser session, press and hold the End key.

MINIBROWSER MENU

While browsing, press and release the power key to display the minibrowser menu:

Option	Description
Reload	Reloads information for current page
Home	Returns you to the Home page.
Bookmarks	Displays a list of bookmarks you've saved.
Bookmark site	Used to save a bookmark for the current page.
Version	Displays information about the minibrowser's software version and developers
Advanced	Displays a several advanced browser options.
Downloads	Used to view or access downloaded7 ringing tones
Exit browser	Exits the minibrowser and ends your browsing session.
Switch off!	Turns the phone off.

ABOUT WEB PAGE CONTENT

The following items may appear on web pages:

- Menu choices may appear as a numbered list.
- Hyperlinks appear as underlined text.
- Input fields (for text or numbers) appear as [...].
- Standard text (for reading only) requires no action.

NAVIGATE IN THE MINIBROWSER

SCROLL THROUGH THE MENUS AND CONTENTS OF A PAGE

Press the up scroll or down scroll key to scroll through menus or the contents of a page (contents may not fit on one screen). To scroll quickly, press and hold the scroll key.



Important: There is no "circular scrolling" in minibrowser menus or pages. In other words, when you get to the end of a list or a body of text, the minibrowser does not automatically return you to the top of the list to begin scrolling again.

GO BACK (PREVIOUS PAGE)

To go back to a previous page, press the End key.

GO TO THE HOME PAGE

 Press the End key repeatedly to move back through previously viewed pages until the Home Page appears.

OR

 Press the power key to display the minibrowser menu, scroll to Home, then press OK.

SELECT OR OPEN AN ITEM (FOR EXAMPLE, A LINK)

 Press the appropriate number key on your phone's keypad (if the item on the page is numbered).

ΩR

 Scroll to the item, then press the appropriate selection key (for example, to select or open a link).

SELECTION KEYS

To navigate to different screens or select special functions, use the selection keys. The function of each selection key can change with each page and depends on each highlighted item.

Left selection key usually selects the highlighted item, but its function may change depending on what you are doing.

Right selection key usually selects a secondary option or displays a menu of secondary options.

LINKS

Links usually appear as items in a numbered list. Depending on its type, when activated, a link will do the following:

- Take you to another page or site.
- Make a phone call (some sites support this feature).

When you make the call, the browser connection terminates and the page you were viewing is stored in memory. When you end the call, the page you were viewing is displayed again and you can continue browsing.

ACTIVATE/SELECT A LINK

- 1 Scroll to highlight the desired link.
- 2 Press the appropriate selection key.
 If the link is a phone number, in some cases, you can also press the Send key to make the call.

BOOKMARKS

You can create a bookmark for a page so that you can quickly return to that page later. You may also be able to create bookmarks using your personal account at your service provider's web site.

BOOKMARK A PAGE

- 1 Go to the page for which you want to set a bookmark.
- 2 Press the power key to access the minibrowser menu.
- 3 Scroll to Bookmark page, then press Select.
 A message may appear asking you to confirm this action.

GO TO A BOOKMARKED PAGE

- From the Home Page, scroll to Bookmarks, then press OK.
 A list of your bookmarks appears.
- 2 Scroll to the bookmark you want to use, then press Select.



Tip: The first ten bookmarks are assigned to keys 1-0. Press and hold the number associated with the desired bookmark to go to the bookmarked site at any time during a browser session.

RECEIVE MESSAGES USING THE MINIBROWSER

Using your service provider, you may be able to receive text messages using the minibrowser. Unlike SMS text messages, minibrowser messages are not stored in the phone and must be accessed through the minibrowser homepage.

Notification of new minibrowser messages

When a new minibrowser message is received, the ton appears in the status bar. Depending on the message priority, you may also hear an alert tone and/or see New message from: displayed on your screen.

- If you receive the message while browsing, press View to read the message or Skip, allowing you to view the message later.
- If you receive the message while phone is idle, press Connect to launch the browser and view the message, or press Back to return to the Start screen.

You can use the Minibrowser messages menu Menu 01–3 (Messages > Minibrowser messages) to read your messages at a later time.

Web links in minibrowser messages

You can receive minibrowser messages containing Web links. If you receive a message containing a link, select **Use Web link** from the message **Options** menu to open the link and go to the Web site.

You can also receive Web links in standard SMS messages. Selecting Use Web link from the message Options menu launches the minibrowser and takes you to the link Web site.

END THE MINIBROWSER SESSION

- Press and hold the End key.
 OR
- Press the power key, scroll to Exit Minibrowser, then press OK.

DISABLE MINIBROWSER CONFIRMATIONS

You can specify whether or not you want your phone to display messages when you begin or end a browser session.

To modify minibrowser confirmations settings

1 Press Menu 4-1-5 (Settings > Call settings > Minibrowser confirmation). The following options appear:

Option	Description
Both	Confirmation required before connecting to the Internet, and before you terminate a browser session.
None	No confirmation notes are displayed.
On connection	Phone asks you to confirm your awareness to possible charges incurred for Internet access.
On exit	Phone asks you to confirm your wish to end browsing.

2 Scroll to the appropriate option, then press **OK**.



Tip: To prevent unintentional exiting of the minibrowser session, select either the **Both** or **On exit** options. This ensures that a confirmation message appears before exiting.

3 Press and hold the End key to end the minibrowser session without confirmation (regardless of the minibrowser confirmation setting).

18 Reference information

USE ENHANCEMENTS SAFFLY

This section provides information about the phone batteries, enhancements, and chargers. Be aware that the information in this section is subject to change as the batteries, chargers, and enhancements change.

This phone is intended for use when supplied with power from an ACP-7U, ACP-8U, ACP-12U, or LCH-9 charger. Other usage could invalidate any approval given to this apparatus and may be dangerous.



Warning: When you purchase batteries, chargers, and enhancements for your phone, use *only* batteries, chargers, and enhancements that have received approval from Nokia. The use of any other type may invalidate any approval or warranty applying to the phone, and could also be dangerous. For availability of approved batteries, chargers, and enhancements, check with your service provider.



Note: For information on how to charge and recharge your battery, please see "Charge the battery" on page 15.

When the battery is fully charged, the indicator will tell you that the battery is fully charged.

When you are not using a charger, disconnect it from the power source. Do not leave the battery connected to a charger for more than 72 hours, since prolonged maintenance charging could shorten its lifetime. If left unused, a fully-charged battery will discharge over time.

Temperature extremes can affect the ability of your battery to charge. Therefore, allow it to cool down or warm up before trying to charge it.

When the battery is running out of power and your phone only has a few minutes of talk time remaining, a warning tone sounds and the **Battery low** message appears briefly. When no more talk time is left, a warning tone is sounded and the phone switches itself off.

Leaving the battery in hot or cold places, such as in a closed car in summer or winter conditions, will reduce the capacity and lifetime of the battery. Always try to keep the battery between 59°F and 77°F (15°C and 25°C). A phone with a hot or cold battery may not work temporarily, even when the battery is fully charged. Battery performance is particularly limited in temperatures below freezing.

Do not dispose of batteries in a fire!



Warning! Use only your hands to remove the battery. Do not puncture, burn or use any objects that may damage the phone or the battery. Please recycle the battery, or dispose of properly.

IMPORTANT SAFETY INFORMATION

This section provides additional safety information. A brief overview of safety can be found in the section.

Traffic Safety

Do not use a handheld telephone while driving a vehicle. Always secure the phone in its holder; do not place the phone on the passenger seat or where it can break loose in a collision or sudden stop.

Remember road safety always comes first!

Operating environment

Remember to follow any special regulations in force in any area and always switch off your phone whenever it is forbidden to use it, or when it may cause interference or danger.

Use the phone only in its normal operating positions.

Electronic devices

Most modern electronic equipment is shielded from radio frequency (RF) signals. However, certain electronic equipment may not be shielded against the RF signals from your wireless phone.

PACEMAKERS

Pacemaker manufacturers recommend that a minimum separation of at least 6 inches (approximately 20 cm) be maintained between a handheld wireless phone and a pacemaker to avoid potential interference with the pacemaker. These recommendations are consistent with the independent research by and recommendations of Wireless Technology Research. Persons with pacemakers:

- Should always keep the phone more than 6 inches (20 cm) from their pacemaker when the phone is switched on.
- Should not carry the phone in a breast pocket.
- Should use the ear opposite the pacemaker to minimize the potential for interference.
- Switch off the phone immediately if you have any reason to suspect that interference is taking place.

HEARING AIDS

Some digital wireless phones may interfere with some hearing aids. In the event of such interference, you may want to consult your service provider.

Other medical devices

Operation of any radio transmitting equipment, including cellular phones, may interfere with the functionality of inadequately protected medical devices. Consult a physician or the manufacturer of the medical device to determine if they are adequately shielded from external RF energy or if you have any questions. Switch off your phone in health care facilities when any regulations posted in these areas instruct you to do so. Hospitals or health care facilities may be using equipment that could be sensitive to external RF energy.

Vehicles

RF signals may affect improperly installed or inadequately shielded electronic systems in motor vehicles (for example, electronic fuel injection systems, electronic antiskid/antilock braking systems, electronic speed control systems, air bag systems). Check with the manufacturer or its representative regarding your vehicle. You should also consult the manufacturer of any equipment that has been added to your vehicle.

POSTED FACILITIES

Switch your phone off in any facility where posted notices so require.

Potentially explosive atmospheres

Switch off your phone when in any area with a potentially explosive atmosphere and obey all signs and instructions. Sparks in such areas could cause an explosion or fire resulting in property and/or bodily injury or even death.

Users are advised to switch off the phone when at a refuelling point (service station). Users are reminded of the need to observe restrictions on the use of radio equipment in fuel depots (fuel storage and distribution areas), chemical plants, or where blasting operations are in progress.

Areas with a potentially explosive atmosphere are often but not always clearly marked. They include below deck on boats; chemical transfer or storage facilities; vehicles using liquefied petroleum gas (such as propane or butane); areas where the air contains chemicals or particles, such as grain, dust, or metal powders; and any other area where you would normally be advised to turn off your vehicle engine.

Vehicles

Only qualified personnel should service the phone or install the phone in a vehicle. Faulty installation or service may be dangerous and may invalidate any warranty which may apply to the unit.

Check regularly that all wireless phone equipment in your vehicle is mounted and operating properly.

Do not store or carry flammable liquids, gases or explosive materials in the same compartment as the phone, its parts or enhancements.

For vehicles equipped with an air bag, remember that an air bag inflates with great force. Do not place objects, including both installed or portable wireless equipment in the area over the air bag or in the air bag deployment area. If in-vehicle wireless equipment is improperly installed and the air bag inflates, serious injury could result.

FCC regulations prohibit using your phone while in the air. Switch off your phone before boarding an aircraft. The use of wireless telephones in an aircraft may be dangerous to the operation of the aircraft, disrupt the wireless telephone network, and may be illegal.

Failure to observe these instructions may lead to suspension or denial of telephone services to the offender, legal action or both.

Emergency calls



Important:This phone, like any wireless phone, operates using radio signals, wireless, and landline networks as well as user-programmed functions. Because of this, connections in all conditions cannot be guaranteed. Therefore you should never rely solely upon any wireless phone for essential communications (for example, medical emergencies).

Emergency calls may not be possible on all wireless phone networks or when certain network services and/or phone features are in use. Check with local service providers.

Make an Emergency Call

- 1 If the phone is not on, switch it on.
- 2 Press the End key as many times as needed (for example, to exit a call, to exit a menu, etc.) to clear the display and ready the phone for calls.
- 3 Enter the emergency number for your present location (for example, 911 or any other official emergency number—emergency numbers vary by location).

- 4 Press the Send key.
- If certain features are in use, you may first need to turn those features
 off before you can make an emergency call. Consult this user guide
 and your local cellular service provider.
- When making an emergency call, remember to give all the necessary information as accurately as possible. Remember that your wireless phone may be the only means of communication at the scene of an accident. Do not end the call until given permission to do so.

CERTIFICATION INFORMATION (SAR)

THIS MODEL PHONE MEETS THE GOVERNMENT'S REQUIREMENTS FOR EXPOSURE TO RADIO WAVES.

Your wireless phone is a radio transmitter and receiver. It is designed and manufactured not to exceed the emission limits for exposure to radio frequency (RF) energy set by the Federal Communications Commission of the U.S. Government. These limits are part of comprehensive guidelines and establish permitted levels of RF energy for the general population. The guidelines are based on standards that were developed by independent scientific organizations through periodic and thorough evaluation of scientific studies. The standards include a substantial safety margin designed to assure the safety of all persons, regardless of age and health.

The exposure standard for wireless mobile phones employs a unit of measurement known as the Specific Absorption Rate, or SAR. The SAR limit set by the FCC is 1.6W/kg.* Tests for SAR are conducted using standard operating positions accepted by the FCC with the phone transmitting at its highest certified power level in all tested frequency bands. Although the SAR is determined at the highest certified power level, the actual SAR level of the phone while operating can be well below the maximum value. This is because the phone is designed to operate at multiple power levels so as to use only the power required to reach the network. In general, the closer you are to a wireless base station antenna, the lower the power output.

Before a phone model is available for sale to the public, it must be tested and certified to the FCC that it does not exceed the limit established by the government-adopted requirement for safe exposure. The tests are performed in positions and locations (for example, at the ear and worn on the body) as required by the FCC for each model. The highest SAR value for this model phone as reported to the FCC when tested for use at the ear is 0.98 W/kg and when worn on the body, as described in this user guide, is 1.22 W/kg. (Body-worn measurements differ among phone models, depending upon available enhancements and FCC requirements).

While there may be differences between the SAR levels of various phones and at various positions, they all meet the government requirement.

The FCC has granted an Equipment Authorization for this model phone with all reported SAR levels evaluated as in compliance with the FCC RF exposure guidelines. SAR information on this model phone is on file with the FCC and can be found under the Display Grant section of

http://www.fcc.gov/oet/fccid after searching on FCC ID QMNRH-17.

For body worn operation, this phone has been tested and meets the FCC RF exposure guidelines for use with an enhancement that contains no metal and that positions the handset a minimum of 5/8 inch (1.5 cm) from the body. Use of other enhancements may not ensure compliance with FCC RF exposure guidelines. If you do not use a body worn enhancement, and are not holding the phone at the ear, position the handset a minimum of 5/8 inch (1.5 cm) from your body when the phone is switched on.

*In the United States and Canada, the SAR limit for mobile phones used by the public is 1.6 watts/kilogram (W/kg) averaged over one gram of tissue. The standard incorporates a substantial margin of safety to give additional protection for the public and to account for any variations in measurements. SAR values may vary depending on national reporting requirements and the network band. For SAR information in other regions please look under product information at:

http://www.nokia.com.

CARE AND MAINTENANCE

Your phone is a product of superior design and craftsmanship and should be treated with care. The suggestions below will help you to fulfill any warranty obligations and to enjoy this product for many years:

- Keep the phone and all its parts and enhancements out of the reach of small children.
- Keep the phone dry. Precipitation, humidity and all types of liquids or moisture can contain minerals that will corrode electronic circuits.
- Do not use or store the phone in dusty, dirty areas. Its moving parts can be damaged.
- Do not store the phone in hot areas. High temperatures can shorten the life of electronic devices, damage batteries, and warp or melt certain plastics.
- Do not store the phone in cold areas. When it warms up (to its normal temperature), moisture can form inside and may damage electronic circuit boards.
- Do not attempt to open the phone except to remove or change front and back covers. Nonexpert handling may damage it.
- Do not drop, knock, or shake the phone. Rough handling can break internal circuit boards.
- Do not use harsh chemicals, cleaning solvents, or strong detergents to clean the phone.
- Do not paint the phone. Paint can clog the moving parts and prevent proper operation.
- Use only the supplied or an approved replacement antenna.
 Unauthorized antennas, modifications, or attachments could damage the phone and may violate regulations governing radio devices.

All of the above suggestions apply equally to your phone, battery, charger or any enhancement. If any of them are not working properly, take them to your nearest qualified service facility. The personnel there will assist you, and if necessary, arrange for service.

ENHANCEMENTS

If you want to enhance your phone's functionality, a range of enhancements is available for you. You can select any of these items to help accommodate your specific communication needs. For availability of these and other enhancements, contact your service provider.



A FEW PRACTICAL RULES FOR ENHANCEMENT OPERATION

- Keep all enhancements out of the reach of small children.
- When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.
- Check regularly that any vehicle-installed enhancements are mounted and are operating properly.
- Installation of any complex car enhancements must be made by qualified personnel only.
- Use only batteries, chargers, and enhancements that have been approved by Nokia. The use of any other types could invalidate any approval or warranty applying to the phone and could be dangerous. Refer to "Use enhancements safely" on page 137 for important battery usage information.

BATTERY INFORMATION



Note: The phone has a lithium ion (Li-Ion) battery. Dispose of batteries according to local regulations (for example, recycling). Do not dispose as household waste.

This section provides information about the phone battery. Be aware that the information in this section is subject to change.

The tables shown in this section provide information about the battery that is available for your phone, charging times with the Standard Travel Charger (ACP-7U), the talk and standby times. Consult your service provider for more information.

Charging Times

Charging times for the BL-5C Li-ion Battery (850 mA) are approximate:

Battery option:	ACP-7U		
BL-5C Li-ion	3 hrs 50 min		

Standby and Talk Times

Mode	Talk time	Standby time		
Digital Up to 3 hrs and 45 min		Up to 15 days		



Note: Battery talk and standby times are estimates only and depend on signal strength, network conditions, features used, battery age and condition (including the effect of charging habits), temperatures to which battery is exposed, use in digital mode, and many other factors. Please note that the amount of time a phone is used for calls will affect its standby time. Likewise, the amount of time that the phone is turned on and in standby mode will affect its talk time.

Charging and Discharging

Your phone is powered by a rechargeable battery.

Note that full performance of a new battery is achieved only after two or three complete charge and discharge cycles!

The battery can be charged and discharged hundreds of times but it will eventually wear out. When the operating time (talk-time and standby time) is noticeably shorter than normal, it is time to buy a new battery.

Use only batteries approved by the phone manufacturer and recharge your battery only with the chargers approved by the manufacturer. Unplug the charger when not in use. Do not leave the battery connected to a charger for longer than 72 hours, since overcharging may shorten its lifetime. If left unused, a fully charged battery will discharge over time.

Temperature extremes can affect the ability of your battery to charge. Battery will not charge at temperatures above 140°F (60°C).

CHARGERS AND OTHER ENHANCEMENTS

Check the model number of any charger before use with this device. This device is intended for use when supplied with power from the devices listed on the following pages.



Warning: Use only batteries, chargers, and enhancements approved by Nokia for use with this particular phone model. The use of any other types may invalidate any approval or warranty applying to the phone and may be dangerous.

For availability of approved enhancements, please check with your dealer.

When you disconnect the power cord of any enhancement, grasp and pull the plug, not the cord.

Learn about chargers and other enhancements

This section provides information about the phone's chargers and enhancements. Be aware that the information in this section is subject to change as the chargers and enhancements change.

The chargers and enhancements that are described in this section are available for your phone. Contact your dealer for details. Also, refer to the enhancements brochure that was included in your sales package for the entire line of Nokia Original enhancements.



Note: When a charger is not in use, disconnect it from the power source. Do not leave the battery connected to a charger for longer than a week, since prolonged maintenance charging of the battery could shorten its lifetime. If left unused, a fully charged battery will discharge over time.

Standard Charger (ACP-7U)

This is a lightweight (187 g) and durable AC charger.

To use the Standard Travel Charger, plug it into a standard 120 V AC wall outlet and connect the lead from the charger to the base of your phone.





Note: If the battery is completely empty, you cannot use the phone until it has enough charge to operate.

Rapid Travel Charger (ACP-8U)

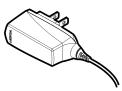
This is a lightweight (100 g) and durable AC charger. Calls can be made during charging, even with a fully discharged battery.

To use the Multi-voltage Charger (ACP-8U), plug it into a standard 120 V or 220 V AC wall outlet, and connect the lead from the charger to the base of your phone.

The charger can also be used together with the optional Desktop Charging Stand. Approximate charging times for discharged batteries are shown in "Charging Times" on page 146.

Travel Charger (ACP-12U)

This is a lightweight and durable AC charger. To use the Standard Travel Charger, plug it into a standard 120 V AC wall outlet and connect the lead from the charger to the base of your phone.



Rapid Mobile Charger (LCH-9)

You can charge your phone's battery from your vehicle battery by using the Rapid Mobile Charger.

Calls are possible during charging. A green light indicates that the charger is ready for charging (when not charging). The battery



charging times are the same as those for the Multi-voltage Charger (ACP-8U).

The input voltage range is from 11 V to 32 V DC, negative grounding. Avoid prolonged charging with the Rapid Mobile Charger (LCH-9) when the car engine is not running; this could cause your car battery to drain. Note also, that in some cars, the cigarette lighter plug is not provided with electricity if the ignition is not switched on.

Headset (HDB-4)

Small and lightweight, the Boom Headset fits over the ear. This headset has excellent audio quality with the microphone and speaker integrated into the unit The Boom Headset provides basic handsfree functionality with an answer/end button.

See "Learn about the HDB-4 headset" on page 35, for more information.



Data Cable (DKU-5)

Easy and convenient connection to your PC or laptop computer for wireless modem functionality. DKU-5 is a USB cable that can be used with Nokia PC Suite and the DCV-15 Desktop charger with PC Sync.



DCV-15 Desktop charger

Used together with the standard travel charger or the rapid travel charger, the DCV-15 desktop charger allows you to charge your phone in an upright position, so that you have a clear view of the phone screen.



Loopset (LPS-4)

With the Nokia Loopset, people who use a T-coil equipped hearing aid have the freedom to talk on a digital mobile phone. The loopset goes around your neck so it can be worn comfortably and discreetly.



BHF-1 Basic Car Kit

The BHF-1 Basic Car Kit offers a headrest handsfree option with an ergonomic design and easy installation.



Mobile Holder (MBC-17)

Holds phone securely in place while driving or during charging. Can be used with Rapid Cigarette Lighter Charger (LCH-9). This holder is used in the Car Kit (CARK-142) and can be used with BHF-1 Basic Handsfree Carkit.



NOKIA XPRESS-ON™ COLOR COVERS

The Xpress-on cover is available in several fashion colors. Xpress-on covers may be purchased from your authorized Nokia dealer.



Warning: Before changing the cover, always switch off the power and disconnect the phone from the charger or any other device. Always store and use the phone with the covers attached.

REMOVE THE BACK COVER

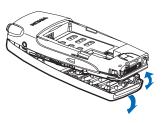
Switch off the power. Disconnect the phone from the charger or any other device.

- Push the release button on the back cover.
- 2 Slide the cover downward and lift off.



REMOVE THE FRONT COVER

- 1 With the phone face down or up, grab the top of the front cover.
- 2 Gently pry the front cover away from the phone and lift the cover off the phone.

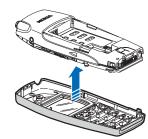




Warning! When the front cover is off the phone, be careful not to damage the phone screen face or the rubber gasket around it.

REPLACE THE FRONT COVER

- 1 Align the keypad with the proper openings in the front cover.
- 2 Gently push the front cover into the phone until it clicks into place.



REPLACE THE BACK COVER

 Insert the two catches of the back cover in the corresponding slots in the phone.



2 Slide the cover towards the bottom of the phone until it locks into place.

FREQUENTLY ASKED QUESTIONS (FAQ)

This section lists and answers the questions that you most frequently ask. Where necessary, the answers refer you to the appropriate text within this guide.



Note: Some of the answers tell you to use menu shortcuts. For a complete listing of these shortcuts, refer to.

Q. How do I lock my phone?

A. Press Menu 4-5-2-1, then press Select. Enter your lock code, scroll to On, and press OK.

Refer to see "Phone lock" on page 106 for more information.

Q. How do I unlock my phone?

 Press Menu 4-5-2-1, press Select, enter your lock code, scroll to Off, and press OK.

Q. What is my lock code?

A. The lock code enables you to lock your phone, thus preventing someone else from using it. The default lock code is 1234. However, it is suggested that you change this code **immediately**.

Q. What is my security code?

A. The default security code is 12345. However, it is suggested that you change this code **immediately**. Certain features can be used *only* after the correct security code has been successfully entered.

Q. How do I lock the keypad?

A. Press Menu followed by */+.
 Refer to "Lock keypad (Keyguard)" on page 104, for more information.

Q. How do I unlock the keypad?

A. Press Unlock, followed by */+.

Q. How do I make the phone ring louder?

A. Press Menu 3-(1,2,3,4 or 5)-2-3, press Select, then choose a volume level.

Q. How do I change the ringing tone?

A. Press Menu 3 and scroll through the list of profiles until you find the one for which you want to change the ringing tone, then press Select.

Highlight Customize and press Select.

Scroll to **Ringing tone**, then press **Select**.

Scroll through the options. After you hear the tone you want to use, press **Select**.

Q. How do I store my voice mailbox number?

A. Press **Menu 01–2–3**, enter your voice mailbox phone number, and press **OK**. The screen tells you that the number is saved.

This voice mailbox number is valid unless your phone number changes. If your phone number changes, you will have to save a new voice mailbox number.

Refer to see "Voice mailbox" on page 60, for more information.

Q. How do I call my voice mailbox number (retrieve voice messages)?

A. When your phone alerts you to new voice messages, press **Listen** and follow the prompts. If you would rather listen to your messages later, press **Exit**.

To listen to your voice messages at a later time, perform one of the following actions:

- Press and hold the 1 key.
- Press Menu 01-2-1. The message Calling voice mailbox appears on the screen. Follow the prompts to access your messages.

Q. How do I find my phone's model number?

- A. Turn your phone off, then remove the battery from the back of the phone. The model number is printed on the sticker that is on the rear cover, and is labeled, "Model." You may also have recorded this information on the title page of this user guide.
- Q. How do I redial the last-dialed number.
- A. Press the **Send** key twice.
- Q. How do I assign a key to 1-touch dialing?
- A. Press Contacts and scroll to 1-touch dialing.
 Press Select

Scroll to the first number that includes the message (empty) and press Assign.

Enter the number or use the Search option to scroll to the name/ number to which you want to assign to this key and press Select.

Repeat these steps as many times as necessary.

Refer to see "1-touch dialing" on page 96, for more information.

Q. How do I find out how many memory locations the phone has?

A. Press Contacts and scroll to Settings.

Press Select.

Scroll to **Memory status** and press **Select** again. A message appears that says **Phone: xx free**, **xx used** where **xx** indicates the percent of memory used.

For more information, refer to and "Technical information" on page 161.

Q. How do I find my phone's ESN (electronic serial number)?

- A. Turn your phone off, then remove the battery from the back of the phone. The ESN number is printed on the sticker that is on the rear cover, and is labeled, "ESN."
- Q. How can I change the brightness of my phone's display?
- A. Press **Menu 4–2–5** and press **Select**. Scroll up or down to adjust the brightness, then press **OK**.
- Q. How do I clear my call timers?
- A. Press Menu 2-5-6 and press OK. Enter your security code and press
 OK. Please see "Clear call timers" on page 58, for more information.



Warning! The clearing of call timers cannot be undone.

• GLOSSARY

Term:	Definition:		
analog network	A network where the signal is conveyed by varying the frequency, amplitude or phase of the transmission.		
antenna	The portion of your phone designed to transmit and receive the wireless signal.		
battery	The source of power for your mobile phone when the phone is not connected to a charger.		
bookmark	A way to save a web site address (or URL) to your phone memory. Use bookmarks to store the addresses of your favorite web sites, then recall them so you can return to the location quickly and easily.		
browser	A software program used to view and navigate a portion of the Internet called the World Wide Web, or Internet locations developed for the minibrowser.		
data/fax call	A call in which your Nokia phone functions as a data modem, connected to your PC using the DKU-5 cable.		
digital network	Network where the signal is converted to a digital or binary code before transmission.		
earpiece	The portion of your phone that contains the speaker. Used to play the audio portion of a voice call.		
earpiece volume	The sound level of the earpiece speaker during a call.		
e-mail	Electronic mail. A written form of communication in which text (and other types of information) is transmitted between recipients electronically over special electronic mail systems managed by corporations and/or Internet service providers.		

Term:	Definition:	
END key	Used to terminate an active call or reject an incoming call. Also used to return to the Start screen from the phone book or from within the phone's menu. Functions as "back" key while using the minibrowser.	
ESN	Electronic serial number. Used to identify your phone on the wireless network.	
home system	Refers to the wireless system to which you are subscribed.	
home type system	Refers to the same type of system to which you are subscribed, but a system that is not your primary home system.	
Internet	An elaborate system of interconnected public and private computer networks around the world, used to provide access to information and enable communication between users worldwide.	
keypad tones	The sound heard when a key on your phone keypad is pressed.	
message alert tone	The sounds that are heard upon receipt of a text or system message (for example, call waiting notification) by your phone.	
microphone	The electronic element in the base of your phone that picks up your voice and other sounds.	
navigate	A term that refers to the act of moving from one Internet site or page to another, or to the act of moving from one area of your phone memory or menu to another.	

Term:	Definition:		
network services	A term referring to those features and functions offered by wireless service providers (in addition to voice call services).		
non-home type system	Any system that does not use the same wireless "format" as your home system.		
number keys	The numbered keys on your phone keypad.		
power key	A key on the top of the phone that allows you to turn the phone on or off. This key can also be used to recall and change your phone's profiles.		
predictive text input	A system developed for rapid text entry using your phone keypad.		
preferred system	Refers to a system that is the same "format" as your home system, but is not the system to which you have subscribed.		
ringing option	Refers to the way your phone plays (or <i>if</i> it plays) a ringing tone when you have an incoming call.		
profile	Refers to the various settings used to configure audible, visible, and vibrating alerts, and the ability to have multiple configurations to match your location or environment.		
ringing tone	The tone or melody that is heard when you have an incoming call.		
ringing volume	Refers to the ringing tone volume of your phone's ringing tone.		
roaming	The state of your phone when you are no longer in your home system. Additional charges may result.		

Term:	Definition:	
screen	Your phone display.	
scroll	To move through a list of, menu items, etc. by using the phone scroll keys. Each new selection or option is highlighted as you scroll to it.	
selection keys	Refers to the keys under the lower left and lower right corners of your phone's screen.	
SMS	Short message service. A service whereby you can send and receive short text messages (typically around 160 characters) with your phone.	
system	Another way to refer to your service provider's wireless network.	
TALK key	The key used to make or answer a call.	
text message	See SMS.	
URL	Universal Resource Locator. A URL is the specific address or location of a web site on the Internet (for example: http://www.nokia.com).	
voice dialing	The ability to dial numbers in your phone using the voice recognition feature. See voice tags.	
voice mail	A system maintained by your service provider, used to record voice messages when you are unable to answer a call.	
voice mailbox	The location on your service provider's network used to store voice mail messages.	
voice tag	A recording of a user's voice that is assigned to a phone book entry. Voice tag is used in conjunction with voice dialing feature (see voice dialing).	

Term:	Definition:	
volume	See earpiece volume or ringing volume.	
warning tones, game tones	The tone played when your phone displays a warning, or those tones that are heard when you are playing one of the phone games.	
wireless network	Your service provider's operating environment, including various types of hardware, software, and landline connections, which makes wireless calls possible.	
World Wide Web (WWW)	The part of the Internet that is viewed using a software application called a <i>web browser</i> . The browser in your Nokia phone can access many sites on the World Wide Web, plus sites designed specifically to be browsed from a mobile phone.	

• TECHNICAL INFORMATION

Wireless system	Dual-band CDMA 800 mHz and AMPS			
Weight	3.49 oz / 99 grams			
Dimensions	Length: 108.3 mm Width: 49.9 mm Thickness: 21.6 mm			
Frequency range	Lowband: 824.04-848.97 MHz (TX) 869.04-893.97 (MHz (RX) Highband: 1850.04-1909.92 MHz (TX) 1930.08-1989.96 MHz (RX)			
Battery voltage	3.6v nominal			
Charging current	850 mA max with ACP-7U and ACP- 12U			
Operating temp.	-22°F to + 140°F (-30°C to + 60°C)			
Channels	832 lowband; 1150 highband			
No. of NAMs	2			
Memory capacity	Phone book: up to 500 entries with up to 2 numbers and 4 text fields per name Calendar: up to 100 entries Text messages: up to 100 messages			
Digital data	circuit-switched data 14.4 kB/s Group 3 packet-switched data (IS-2000) Up to 153.6 kB/s			

• TROUBLESHOOTING

Problem	Possible cause	Possible solution	
My phone isn't charging.	Charger and phone are not properly connected. charger and phone/cha stand and phone.		
	Charger is not properly plugged in.	Make sure charger is properly plugged into wall outlet.	
My phone isn't	Battery is not charged.	Charge the battery.	
making/answering calls.	Poor signal strength	Extend whip antenna.	
	Outside of service area.	Change locations until the phone displays service available.	
I can't listen to my voice messages.	You do not have voice mail service.	Call your wireless service provider.	
	You have not set up your voice mailbox with your service provider.	Call your wireless service provider.	
	You have not saved your voice mail number in your phone.	Call your wireless service provider.	
	The voice mail number you have saved is incorrect.	Call your wireless service provider.	
	You have forgotten your password or are entering it incorrectly.	Call your wireless service provider.	

Problem	Possible cause	Possible solution
My SMS messages are not being delivered.	You do not have SMS service.	Call your wireless service provider.
I can't successfully tag a phone book entry or menu	Excessive background noise during the recording process.	Find a quiet location and try again.
command.	Voice tag memory is full.	Follow screen prompt to delete an existing tag, making room for new voice tag.
Voice dialing or voice command does not recognize my voice.	Voice tag was recorded by someone other than yourself.	Rerecord voice tag using your voice.

19 Nokia One Year Limited Warranty

Nokia Inc. ("Nokia") warrants that this cellular phone ("Product") is free from defects in material and workmanship that result in Product failure during normal usage, according to the following terms and conditions:

- 1 The limited warranty for the Product extends for ONE (1) year beginning on the date of the purchase of the Product. This one year period is extended by each whole day that the Product is out of your possession for repair under this warranty.
- 2 The limited warranty extends only to the original purchaser ("Consumer") of the Product and is not assignable or transferable to any subsequent purchaser/end- user.
- 3 The limited warranty extends only to Consumers who purchase the Product in the United States of America.
- During the limited warranty period, Nokia will repair, or replace, at Nokia's sole option, any defective parts, or any parts that will not properly operate for their intended use with new or refurbished replacement items if such repair or replacement is needed because of product malfunction or failure during normal usage. No charge will be made to the Consumer for any such parts. Nokia will also pay for the labor charges incurred by Nokia in repairing or replacing the defective parts. The limited warranty does not cover defects in appearance, cosmetic, decorative or structural items, including framing, and any non-operative parts. Nokia's limit of liability under the limited warranty shall be the actual cash value of the Product at the time the Consumer returns the Product for repair, determined by the price paid by the Consumer for the Product less a reasonable amount for usage. Nokia shall not be liable for any other losses or damages. These remedies are the Consumer's exclusive remedies for breach of warranty.

- 5 Upon request from Nokia, the Consumer must prove the date of the original purchase of the Product by a dated bill of sale or dated itemized receipt.
- 6 The Consumer shall bear the cost of shipping the Product to Nokia in Melbourne, Florida. Nokia shall bear the cost of shipping the Product back to the Consumer after the completion of service under this limited warranty.
- 7 The Consumer shall have no coverage or benefits under this limited warranty if any of the following conditions are applicable:
 - a) The Product has been subjected to abnormal use, abnormal conditions, improper storage, exposure to moisture or dampness, unauthorized modifications, unauthorized connections, unauthorized repair, misuse, neglect, abuse, accident, alteration, improper installation, or other acts which are not the fault of Nokia, including damage caused by shipping.
 - b) The Product has been damaged from external causes such as collision with an object, or from fire, flooding, sand, dirt, windstorm, lightning, earthquake or damage from exposure to weather conditions, an Act of God, or battery leakage, theft, blown fuse, or improper use of any electrical source, damage caused by computer or internet viruses, bugs, worms, Trojan Horses, cancelbots or damage caused by the connection to other products not recommended for interconnection by Nokia.
 - c) Nokia was not advised in writing by the Consumer of the alleged defect or malfunction of the Product within fourteen (14) days after the expiration of the applicable limited warranty period.
 - **d)** The Product serial number plate or the enhancement data code has been removed, defaced or altered.
 - e) The defect or damage was caused by the defective function of the cellular system or by inadequate signal reception by the external antenna, or viruses or other software problems introduced into the Product.

- 8 Nokia does not warrant uninterrupted or error-free operation of the Product. If a problem develops during the limited warranty period, the Consumer shall take the following step-by-step procedure:
 - The Consumer shall return the Product to the place of purchase for repair or replacement processing.
 - b) If "a" is not convenient because of distance (more than 50 miles) or for other good cause, the Consumer shall ship the Product prepaid and insured to:

Nokia Inc., Attn: Repair Department 795 West Nasa Blvd. Melbourne, FL 32901

- c) The Consumer shall include a return address, daytime phone number and/or fax number, complete description of the problem, proof of purchase and service agreement (if applicable). Expenses related to removing the Product from an installation are not covered under this limited warranty.
- d) The Consumer will be billed for any parts or labor charges not covered by this limited warranty. The Consumer will be responsible for any expenses related to reinstallation of the Product.
- e) Nokia will repair the Product under the limited warranty within 30 days after receipt of the Product. If Nokia cannot perform repairs covered under this limited warranty within 30 days, or after a reasonable number of attempts to repair the same defect, Nokia at its option, will provide a replacement Product or refund the purchase price of the Product less a reasonable amount for usage. In some states the Consumer may have the right to a loaner if the repair of the Product takes more than ten (10) days. Please contact the Customer Service Center at Nokia at the telephone number listed at the end of this warranty if you need a loaner and the repair of the Product has taken or is estimated to take more than ten (10) days.

- f) If the Product is returned during the limited warranty period, but the problem with the Product is not covered under the terms and conditions of this limited warranty, the Consumer will be notified and given an estimate of the charges the Consumer must pay to have the Product repaired, with all shipping charges billed to the Consumer. If the estimate is refused, the Product will be returned freight collect. If the Product is returned after the expiration of the limited warranty period, Nokia's normal service policies shall apply and the Consumer will be responsible for all shipping charges.
- 9 YOU (THE CONSUMER) UNDERSTAND THAT THE PRODUCT MAY CONSIST OF REFURBISHED EQUIPMENT THAT CONTAINS USED COMPONENTS, SOME OF WHICH HAVE BEEN REPROCESSED. The used components comply with Product performance and reliability specifications.
- 10 ANY IMPLIED WARRANTY OF MERCHANTABILITY. OR FITNESS FOR A PARTICULAR PURPOSE OR USE, SHALL BE LIMITED TO THE DURATION OF THE FOREGOING LIMITED WRITTEN WARRANTY, OTHERWISE, THE FOREGOING LIMITED WARRANTY IS THE CONSUMER'S SOLE AND EXCLUSIVE REMEDY AND IS IN LIEU OF ALL OTHER WARRANTIES, EXPRESS OR IMPLIED. NOKIA SHALL NOT BE LIABLE FOR SPECIAL. INCIDENTAL, PUNITIVE OR CONSEQUENTIAL DAMAGES, INCLUDING BUT NOT LIMITED TO LOSS OF ANTICIPATED BENEFITS OR PROFITS. LOSS OF SAVINGS OR REVENUE. LOSS OF DATA. PUNITIVE DAMAGES. LOSS OF USE OF THE PRODUCT OR ANY ASSOCIATED EQUIPMENT. COST OF CAPITAL, COST OF ANY SUBSTITUTE EQUIPMENT OR FACILITIES, DOWNTIME, THE CLAIMS OF ANY THIRD PARTIES, INCLUDING CUSTOMERS, AND INJURY TO PROPERTY, RESULTING FROM THE PURCHASE OR USE OF THE PRODUCT OR ARISING FROM BREACH OF THE WARRANTY, BREACH OF CONTRACT, NEGLIGENCE, STRICT TORT, OR ANY OTHER LEGAL OR EQUITABLE THEORY, EVEN IF NOKIA KNEW OF THE LIKELIHOOD OF SUCH DAMAGES, NOKIA SHALL NOT BE LIABLE FOR DELAY IN RENDERING SERVICE UNDER THE LIMITED WARRANTY, OR LOSS OF USE DURING THE PERIOD THAT THE PRODUCT IS BEING REPAIRED.

- 11 Some states do not allow limitation of how long an implied warranty lasts, so the one year warranty limitation may not apply to you (the Consumer). Some states do not allow the exclusion or limitation of incidental and consequential damages, so certain of the above limitations or exclusions may not apply to you (the Consumer). This limited warranty gives the Consumer specific legal rights and the Consumer may also have other rights which vary from state to state.
- 12 Nokia neither assumes nor authorizes any authorized service center or any other person or entity to assume for it any other obligation or liability beyond that which is expressly provided for in this limited warranty including the provider or seller of any extended warranty or service agreement.
- 13 This is the entire warranty between the Nokia and the Consumer, and supersedes all prior and contemporaneous agreements or understandings, oral or written, relating to the Product, and no representation, promise or condition not contained herein shall modify these terms.
- 14 This limited warranty allocates the risk of failure of the Product between the Consumer and Nokia. The allocation is recognized by the Consumer and is reflected in the purchase price.
- 15 Any action or lawsuit for breach of warranty must be commenced within eighteen (18) months following purchase of the Product.
- 16 Questions concerning this limited warranty may be directed to: Nokia Inc.

Attn: Customer Service

7725 Woodland Center Blvd., Ste. 150

Tampa, FL 33614

Telephone: 1-888-NOKIA-2U (1-888-665-4228)

Fax: 1-813-249-9619

TTY/TDD Users Only: 1-800-24-NOKIA (1-800-246-6542)

17 The limited warranty period for Nokia supplied attachments and enhancements is specifically defined within their own warranty cards and packaging.

Nokia One Year Limited Warranty

Manufactured or sold under one or more of the following US patents:

D405445	5444816	5737323	5821891	5990740	6055264	6154455	Others
D406583	5491718	5754976	5854978	5991627	6072787	6167083	4558302
D414189	5596571	5758278	5859843	6005889	6076181	6205325	4901307
D405784	5642377	5790957	5887250	6009129	6078570	6253075	5056109
D423515	5699482	5793744	5887252	6025802	6084471	6292474	5101501
4969192	5701392	5796757	5889770	6029065	6088342		5109390
5440597	5708656	5802465	5929813	6047071	6148290		5265119
							RE32580

Appendix A

Message from the CTIA (Cellular Telecommunications & Internet Association) to all users of mobile phones.

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A Guide to Safe and Responsible Wireless Phone Use

Tens of millions of people in the U.S. today take advantage of the unique combination of convenience, safety and value delivered by the wireless telephone. Quite simply, the wireless phone gives people the powerful ability to communicate by voice--almost anywhere, anytime--with the boss, with a client, with the kids, with emergency personnel or even with the police. Each year, Americans make billions of calls from their wireless phones, and the numbers are rapidly growing. But an important responsibility accompanies those benefits, one that every wireless phone user must uphold. When driving a car, driving is your first responsibility. A wireless phone can be an invaluable tool, but good judgment must be exercised at all times while driving a motor vehicle--whether on the phone or not.

The basic lessons are ones we all learned as teenagers. Driving requires alertness, caution and courtesy. It requires a heavy dose of basic common sense---keep your head up, keep your eyes on the road, check your mirrors frequently and watch out for other drivers. It requires obeying all traffic signs and signals and staying within the speed limit. It means using seatbelts and requiring other passengers to do the same.

But with wireless phone use, driving safely means a little more. This brochure is a call to wireless phone users everywhere to make safety their first priority when behind the wheel of a car. Wireless telecommunications is keeping us in touch, simplifying our lives, protecting us in emergencies and providing opportunities to help others in need.

When it comes to the use of wireless phones, safety is your most important call.

Wireless Phone "Safety Tips"

Below are safety tips to follow while driving and using a wireless phone which should be easy to remember.

- 1 Get to know your wireless phone and its features such as speed dial and redial. Carefully read your instruction manual and learn to take advantage of valuable features most phones offer, including automatic redial and memory. Also, work to memorize the phone keypad so you can use the speed dial function without taking your attention off the road.
- 2 When available, use a hands free device. A number of hands free wireless phone accessories are readily available today. Whether you choose an installed mounted device for your wireless phone or a speaker phone accessory, take advantage of these devices if available to you.
- 3 Position your wireless phone within easy reach. Make sure you place your wireless phone within easy reach and where you can grab it without removing your eyes from the road. If you get an incoming call at an inconvenient time, if possible, let your voice mail answer it for you.
- 4 Suspend conversations during hazardous driving conditions or situations. Let the person you are speaking with know you are driving; if necessary, suspend the

Appendix A Message from the CTIA

- call in heavy traffic or hazardous weather conditions. Rain, sleet, snow and ice can be hazardous, but so is heavy traffic. As a driver, your first responsibility is to pay attention to the road.
- 5 Do not take notes or look up phone numbers while driving. If you are reading an address book or business card, or writing a "to do" list while driving a car, you are not watching where you are going. It's common sense. Don't get caught in a dangerous situation because you are reading or writing and not paying attention to the road or nearby vehicles.
- 6 Dial sensibly and assess the traffic; if possible, place calls when you are not moving or before pulling into traffic. Try to plan your calls before you begin your trip or attempt to coincide your calls with times you may be stopped at a stop sign, red light or otherwise stationary. But if you need to dial while driving, follow this simple tip--dial only a few numbers, check the road and your mirrors, then continue.
- 7 Do not engage in stressful or emotional conversations that may be distracting. Stressful or emotional conversations and driving do not mix--they are distracting and even dangerous when you are behind the wheel of a car. Make people you are talking with aware you are driving and if necessary, suspend conversations which have the potential to divert your attention from the road.
- 8 Use your wireless phone to call for help. Your wireless phone is one of the greatest tools you can own to protect yourself and your family in dangerous situations--with your phone at your side, help is only three numbers away. Dial 9-1-1 or other local emergency number in the case of fire, traffic accident, road hazard or medical emergency. Remember, it is a free call on your wireless phone!
- 9 Use your wireless phone to help others in emergencies. Your wireless phone provides you a perfect opportunity to be a "Good Samaritan" in your community. If you see an auto accident, crime in progress or other serious emergency where lives are in danger, call 9-1-1 or other local emergency number, as you would want others to do for you.
- 10 Call roadside assistance or a special wireless non-emergency assistance number when necessary. Certain situations you encounter while driving may require attention, but are not urgent enough to merit a call for emergency services. But you still can use your wireless phone to lend a hand. If you see a broken-down vehicle posing no serious hazard, a broken traffic signal, a minor traffic accident where no one appears injured or a vehicle you know to be stolen, call roadside assistance or other special non-emergency wireless number.

Careless, distracted individuals and people driving irresponsibly represent a hazard to everyone on the road. Since 1984, the Cellular Telecommunications Industry Association and the wireless industry have conducted educational outreach to inform wireless phone users of their responsibilities as safe drivers and good citizens. As we approach a new century, more and more of us will take advantage of the benefits of wireless telephones. And, as we take to the roads, we all have a responsibility to drive safely.

The wireless industry reminds you to use your phone safely when driving.

For more information, please call 1-888-901-SAFE. For updates: http://www.wow-com.com/consumer/issues/driving/articles.cfm?ID=85

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Appendix B Message from the FDA (U.S. Food and Drug Administration) to all users of mobile phones.

July 18, 2001..... For updates: http://www.fda.gov/cdrh/phones

Consumer Update on Wireless Phones

U.S. Food and Drug Administration

1. Do wireless phones pose a health hazard?

The available scientific evidence does not show that any health problems are associated with using wireless phones. There is no proof, however, that wireless phones are absolutely safe. Wireless phones emit low levels of radiofrequency energy (RF) in the microwave range while being used. They also emit very low levels of RF when in the stand-by mode. Whereas high levels of RF can produce health effects (by heating tissue), exposure to low level RF that does not produce heating effects causes no known adverse health effects. Many studies of low level RF exposures have not found any biological effects. Some studies have suggested that some biological effects may occur, but such findings have not been confirmed by additional research. In some cases, other researchers have had difficulty in reproducing those studies, or in determining the reasons for inconsistent results.

2. What is FDA's role concerning the safety of wireless phones?

Under the law, FDA does not review the safety of radiation-emitting consumer products such as wireless phones before they can be sold, as it does with new drugs or medical devices. However, the agency has authority to take action if wireless phones are shown to emit radiofrequency energy (RF) at a level that is hazardous to the user. In such a case, FDA could require the manufacturers of wireless phones to notify users of the health hazard and to repair, replace or recall the phones so that the hazard no longer exists.

Although the existing scientific data do not justify FDA regulatory actions, FDA has urged the wireless phone industry to take a number of steps, including the following:

- Support needed research into possible biological effects of RF of the type emitted by wireless phones;
- Design wireless phones in a way that minimizes any RF exposure to the user that is not necessary for device function; and
- Cooperate in providing users of wireless phones with the best possible information on possible effects of wireless phone use on human health.

FDA belongs to an interagency working group of the federal agencies that have responsibility for different aspects of RF safety to ensure coordinated efforts at the federal level. The following agencies belong to this working group:

- National Institute for Occupational Safety and Health
- Environmental Protection Agency
- Federal Communications Commission
- Occupational Safety and Health Administration
- National Telecommunications and Information Administration

The National Institutes of Health participates in some interagency working group activities, as well.

FDA shares regulatory responsibilities for wireless phones with the Federal Communications Commission (FCC). All phones that are sold in the United States must comply with FCC safety guidelines that limit RF exposure. FCC relies on FDA and other health agencies for safety questions about wireless phones. FCC also regulates the base stations that the wireless phone networks rely upon. While these base stations operate at higher power than do the wireless phones themselves, the

RF exposures that people get from these base stations are typically thousands of times lower than those they can get from wireless phones. Base stations are thus not the subject of the safety questions discussed in this document.

3. What kinds of phones are the subject of this update?

The term wireless phone refers here to hand-held wireless phones with built-in antennas, often called cell mobile or PCS phones. These types of wireless phones can expose the user to measurable radiofrequency energy (RF) because of the short distance between the phone and the user's head. These RF exposures are limited by Federal Communications Commission safety guidelines that were developed with the advice of FDA and other federal health and safety agencies. When the phone is located at greater distances from the user, the exposure to RF is drastically lower because a person's RF exposure decreases rapidly with increasing distance from the source. The so-called cordless phones; which have a base unit connected to the telephone wiring in a house, typically operate at far lower power levels, and thus produce RF exposures far below the FCC safety limits.

4. What are the results of the research done already?

The research done thus far has produced conflicting results, and many studies have suffered from flaws in their research methods. Animal experiments investigating the effects of radiofrequency energy (RF) exposures characteristic of wireless phones have yielded conflicting results that often cannot be repeated in other laboratories. A few animal studies, however, have suggested that low levels of RF could accelerate the development of cancer in laboratory animals. However, many of the studies that showed increased tumor development used animals that had been genetically engineered or treated with cancer-causing chemicals so as to be pre-disposed to develop cancer in the absence of RF exposure. Other studies exposed the animals to RF for up to 22 hours per day. These conditions are not similar to the conditions under which people use wireless phones, so we don't know with certainty what the results of such studies mean for human health.

Three large epidemiology studies have been published since December 2000. Between them, the studies investigated any possible association between the use of wireless phones and primary brain cancer, glioma, meningioma, or acoustic neuroma, tumors of the brain or salivary gland, leukemia, or other cancers. None of the studies demonstrated the existence of any harmful health effects from wireless phone RF exposures. However, none of the studies can answer questions about long-term exposures, since the average period of phone use in these studies was around three years.

5. What research is needed to decide whether RF exposure from wireless phones poses a health risk?

A combination of laboratory studies and epidemiological studies of people actually using wireless phones would provide some of the data that are needed. Lifetime animal exposure studies could be completed in a few years. However, very large numbers of animals would be needed to provide reliable proof of a cancer promoting effect if one exists. Epidemiological studies can provide data that is directly applicable to human populations, but 10 or more years follow-up may be needed to provide answers about some health effects, such as cancer. This is because the interval between the time of exposure to a cancer-causing agent and the time tumors develop - if they do - may be many, many years. The interpretation of epidemiological studies is hampered by difficulties in measuring actual RF exposure during day-to-day use of wireless phones. Many factors affect this measurement, such as the angle at which the phone is held, or which model of phone is used.

6. What is FDA doing to find out more about the possible health effects of wireless phone RF?

FDA is working with the U.S. National Toxicology Program and with groups of investigators around the world to ensure that high priority animal studies are conducted to address important questions about the effects of exposure to radiofrequency energy (RF).

FDA has been a leading participant in the World Health Organization International Electromagnetic Fields (EMF) Project since its inception in 1996. An influential result of this work has been the development of a detailed agenda of research needs that has driven the establishment of new research programs around the world. The Project has also helped develop a series of public information documents on EMF issues.

FDA and the Cellular Telecommunications & Internet Association (CTIA) have a formal Cooperative Research and Development Agreement (CRADA) to do research on wireless phone safety. FDA provides the scientific oversight, obtaining input from experts in government, industry, and academic organizations. CTIA-funded research is conducted through contracts to independent investigators. The initial research will include both laboratory studies and studies of wireless phone users. The CRADA will also include a broad assessment of additional research needs in the context of the latest research developments around the world.

7. How can I find out how much radiofrequency energy exposure I can get by using my wireless phone?

All phones sold in the United States must comply with Federal Communications Commission (FCC) guidelines that limit radiofrequency energy (RF) exposures. FCC established these guidelines in consultation with FDA and the other federal health and safety agencies. The FCC limit for RF exposure from wireless telephones is set at a Specific Absorption Rate (SAR) of 1.6 watts per kilogram (1.6 W/kg). The FCC limit is consistent with the safety standards developed by the Institute of Electrical and Electronic Engineering (IEEE) and the National Council on Radiation Protection and Measurement. The exposure limit takes into consideration the body's ability to remove heat from the tissues that absorb energy from the wireless phone and is set well below levels known to have effects.

Manufacturers of wireless phones must report the RF exposure level for each model of phone to the FCC. The FCC website (http://www.fcc.gov/oet/rfsafety) gives directions for locating the FCC identification number on your phone so you can find your phone's RF exposure level in the online listing.

8. What has FDA done to measure the radiofrequency energy coming from wireless phones?

The Institute of Electrical and Electronic Engineers (IEEE) is developing a technical standard for measuring the radiofrequency energy (RF) exposure from wireless phones and other wireless handsets with the participation and leadership of FDA scientists and engineers. The standard, Recommended Practice for Determining the Spatial-Peak Specific Absorption Rate (SAR) in the Human Body Due to Wireless Communications Devices: Experimental Techniques, sets forth the first consistent test methodology for measuring the rate at which RF is deposited in the heads of wireless phone users. The test methodology is expected to greatly improve the consistency of measurements made at different laboratories on the same phone. SAR is the measurement of the amount of energy absorbed in tissue, either by the whole

body or a small part of the body. It is measured in watts/kg (or milliwatts/g) of matter. This measurement is used to determine whether a wireless phone complies with safety guidelines.

9. What steps can I take to reduce my exposure to radiofrequency energy from my wireless phone?

If there is a risk from these products—and at this point we do not know that there isit is probably very small. But if you are concerned about avoiding even potential
risks, you can take a few simple steps to minimize your exposure to radiofrequency
energy (RF). Since time is a key factor in how much exposure a person receives,
reducing the amount of time spent using a wireless phone will reduce RF exposure.
If you must conduct extended conversations by wireless phone every day, you could
place more distance between your body and the source of the RF, since the exposure
level drops off dramatically with distance. For example, you could use a headset and
carry the wireless phone away from your body or use a wireless phone connected to
a remote antenna.

Again, the scientific data do not demonstrate that wireless phones are harmful. But if you are concerned about the RF exposure from these products, you can use measures like those described above to reduce your RF exposure from wireless phone use

10. What about children using wireless phones?

The scientific evidence does not show a danger to users of wireless phones, including children and teenagers. If you want to take steps to lower exposure to radiofrequency energy (RF), the measures described above would apply to children and teenagers using wireless phones. Reducing the time of wireless phone use and increasing the distance between the user and the RF source will reduce RF exposure. Some groups sponsored by other national governments have advised that children be discouraged from using wireless phones at all. For example, the government in the United Kingdom distributed leaflets containing such a recommendation in December 2000. They noted that no evidence exists that using a wireless phone causes brain tumors or other ill effects. Their recommendation to limit wireless phone use by children was strictly precautionary; it was not based on scientific evidence that any health hazard exists

11. What about wireless phone interference with medical equipment?

Radiofrequency energy (RF) from wireless phones can interact with some electronic devices. For this reason, FDA helped develop a detailed test method to measure electromagnetic interference (EMI) of implanted cardiac pacemakers and defibrillators from wireless telephones. This test method is now part of a standard sponsored by the Association for the Advancement of Medical instrumentation (AAMI). The final draft, a joint effort by FDA, medical device manufacturers, and many other groups, was completed in late 2000. This standard will allow manufacturers to ensure that cardiac pacemakers and defibrillators are safe from wireless phone EMI. FDA has tested hearing aids for interference from handheld wireless phones and helped develop a voluntary standard sponsored by the Institute of Electrical and Electronic Engineers (IEEE). This standard specifies test methods and performance requirements for hearing aids and wireless phones so that no interference occurs when a person uses a compatible phone and a accompanied hearing aid at the same time. This standard was approved by the IEEE in 2000.

FDA continues to monitor the use of wireless phones for possible interactions with other medical devices. Should harmful interference be found to occur, FDA will conduct testing to assess the interference and work to resolve the problem.

12. Where can I find additional information?

For additional information, please refer to the following resources:

- FDA web page on wireless phones http://www.fda.gov/cdrh/phones/index.html
- Federal Communications Commission (FCC) RF Safety Program http://www.fcc.gov/oet/rfsafety
- International Commission on Non-Ionizing Radiation Protection http://www.icnirp.de
- World Health Organization (WHO) International EMF Project http://www.who.int/emf
- National Radiological Protection Board (UK) http://www.nrpb.org.uk/

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